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FRUIT Situation

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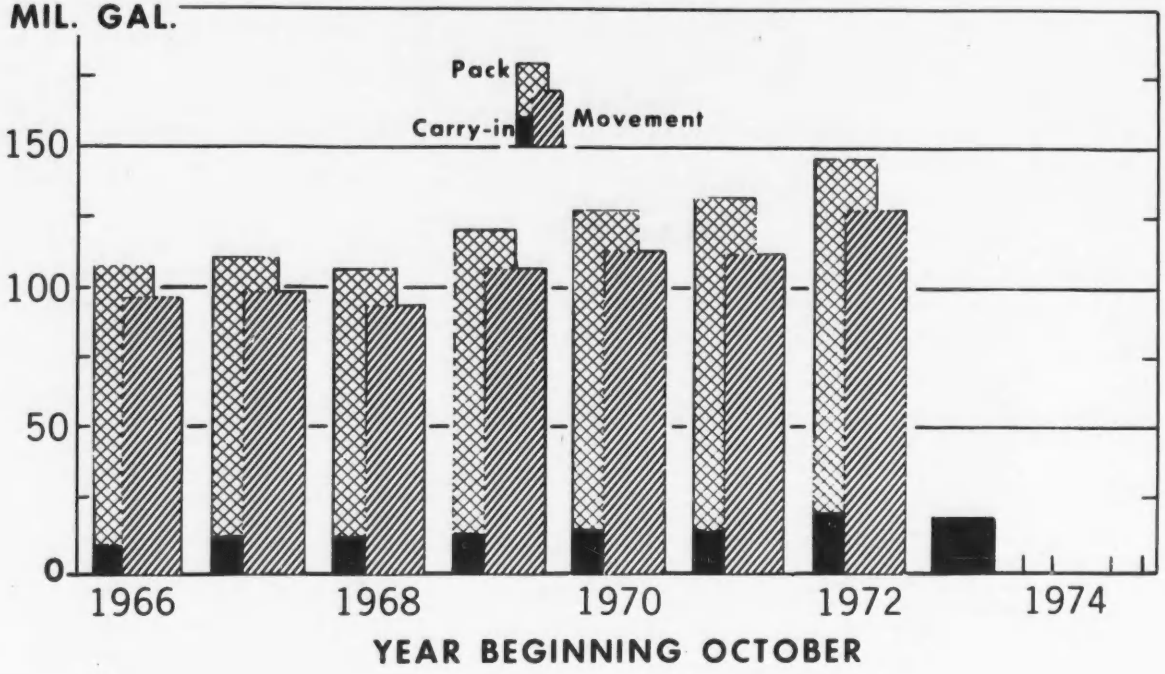
FLORIDA SUPPLY AND MOVEMENT OF CHILLED ORANGE JUICE



U.S. DEPARTMENT OF AGRICULTURE

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THE FRUIT SITUATION

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SUMMARY

A 12.9 million ton citrus crop is likely this year, moderately below last season's record crop. Most of the decline is expected to take place in Florida, especially in the production of oranges. Relatively large supplies of most processed citrus products are on hand to meet the apparently increasing demand. Non-citrus output in 1973 was more than a fourth larger than the short crop of 1972, accounting for the larger supplies of most fresh, frozen, and dried non-citrus products during the 1973/74 marketing season. However, canned non-citrus items remain in short supply.

During the remainder of the 1973/74 marketing season, prices of most fruits at all levels are expected to remain higher than a year ago. Grower prices continue to increase. January's index of prices received by farmers for fruit at 130 (1967=100) was 10 percent above a year ago, and 7 percent higher than in December 1973, reflecting strong domestic and foreign demand for fresh and processed fruit, and the reduced supplies of canned non-citrus products.

Average retail prices for most fruit are expected to advance at least until the 1974 season begins. In addition to strong product demand, the higher prices to consumers will reflect higher raw product costs paid by processors this season, and increased processing and marketing costs.

The Nation's *orange* crop is currently forecast at 205.5 million boxes (8.9 million tons), 8 percent below the 1972/73 crop, but 8 percent above 2 years ago and the second largest on record. An estimated 157 million boxes will come from Florida, 7 percent below last season's record output. California's orange output at 38 million boxes is 10 percent below last year's level. . .due to a one fourth smaller Valencia crop. . .while Navel production is expected to increase 12 percent. Texas and Arizona expect smaller supplies. On-tree grower returns for U.S. oranges in January were moderately higher than a year ago, and will remain relatively high in view of the smaller crop and continued strong demand for frozen orange juice concentrate and chilled juice.

Although production prospects for *grapefruit* have declined from record levels, the U.S. crop is large. . .now estimated at 64.6 million boxes, nearly as much as last season. Domestic movement of fresh

grapefruit this season through early February was moderately below last year's pace, while export demand continued strong.

Prospective *lemon* supplies are 18 percent below last season's record volume. Total fresh lemon shipments through early February were about the same as last season, while sales for processing use were down sharply. To date, shipping point prices have been substantially above last year's level, and are expected to continue so.

Storage stocks of *fresh apples* are almost one-fifth more than a year ago reflecting the record harvest in Washington. Despite the larger supply, average U.S. prices to growers for apples for fresh use have been well above year-earlier levels reflecting strong fresh market and processor demand. Prices will continue strong for the remainder of the season. Shipping point prices for fresh pears have been below year-earlier levels and the large supply is likely to keep prices below year-earlier levels for the rest of the marketing season.

The 1973/74 *pack of canned non-citrus fruit* is largely complete and is moderately larger than the preceding season's volume. However, because of the nearly depleted carryover at the beginning of the season and good domestic and foreign movement, the supply of most canned non-citrus items will continue tight at least until the new packing season gets underway. As a result, wholesale prices for most canned non-citrus fruits have been advancing this season and in January 1974, the BLS wholesale price index of canned fruit stood at 135.1 (1967=100), up 13 percent from a year ago. The domestic market will undoubtedly remain firm, with some advance in retail prices likely during the months ahead.

Storage holdings of *frozen deciduous fruits and berries* on February 1 were slightly above the year-earlier volume, mainly because of increases for blueberries, peaches, and strawberries. As a result of the considerably larger pack, supplies of *dried fruits* are up moderately to substantially from a year ago. Reflecting strong domestic and foreign demand, wholesale raisin prices have been advancing and are likely to continue so.

Production of all major domestic *tree nuts* is larger. Crops of pecans, walnuts, and filberts registered substantial gains, while almond production increased only moderately. Demand so far this season has been good and grower prices for walnuts, almonds, and filberts, are generally higher.

RECENT DEVELOPMENTS AND OUTLOOK

FRESH CITRUS

The U.S. citrus crop for the 1973/74 season is estimated at 12.9 million tons, 7 percent below last season but up 6 percent from 1971/72. Most of the decline is expected to take place in Florida, especially in the production of oranges.

Oranges

Moderately Smaller Crop

The Nation's 1973/74 orange crop is now expected to total 205.5 million boxes or 8.9 million tons. While this season's expected output is 8 percent below the 1972/73 crop, it is still 8 percent above 2 years ago and the second largest output on record. . .if current forecasts are realized. Early, midseason and Navel varieties account for 111.1 million boxes, about 3 percent less than a year ago. The Valencia crop is forecast at 94.4 million boxes, nearly 14 percent below last season.

Florida's orange crop, forecast at 157 million boxes, is 7 percent below last season's record output but nearly 15 percent above 1971/72. Early and midseason varieties, at 85 million boxes, are down 6 percent, and Valencias (accounting for the remaining 72 million boxes) are down from 79.7 million boxes in 1972/73. The January 1 Florida production forecast was 3 million boxes lower than the December 1 forecast since dry weather earlier in the season resulted in smaller sizes and a higher droppage rate than expected earlier. The February 1 estimate was held at the January level. Citrus trees and current fruit crop were considered in excellent condition at the end of January.

Current prospects show California's orange output of 38 million boxes is 10 percent below last year's level while Texas prospects of a 7.0 million box orange crop is slightly less than in 1972/73. The decline in California output is due entirely to the one-fourth smaller Valencia crop as Navel and miscellaneous varieties are expected to increase 12 percent.

During the 1972/73 season, fresh utilization of Florida oranges increased by a million boxes to a little over 12 million boxes, about 7 percent of the State's total orange crop. The increase in Florida's fresh utilization was due in part to last season's freeze-damaged crop in California, where most oranges are produced for the fresh market. California's fresh utilization in 1972/73 was 24.6 million boxes, nearly 60 percent of their total orange crop, compared to 27.4 million boxes or 63 percent in 1971/72.

Grower Prices Moderately Higher

This season's fresh orange shipments from Florida through early February were one-tenth below year-earlier levels. Domestic shipments were down about 13 percent reflecting the smaller crop this season and

the independent truckers strike during late January-early February. Shipments out of Florida are dependent mainly on truckers and many packinghouses shut down during the strike. Only a few did any packing and that was on a limited basis for export.

Florida's on-tree returns for all early and midseason varieties are expected to average above the 1972/73 season's estimated $1.30 per box, which was one-third less than the previous season. So far this season, Florida's f.o.b. prices for fresh fruit and delivered-in prices for processing of early and midseason varieties have averaged moderately above year-earlier levels. Prices this season are expected to remain moderately above year earlier levels due to the smaller orange crop, good export prospects, and firm demand for processed orange products.

Despite the larger Navel crop, fresh shipments from California and Arizona through early February were down substantially from year-earlier levels. Average f.o.b. prices were moderately higher this season through early February. With the remaining Navel crop to be harvested in early February considerably larger than a year ago, f.o.b. prices are expected to average near last year's level.

Exports Increase

Export shipments of oranges from Florida, California, and Arizona so far this season have increased substantially. By early February shipments were three-fourths above year-earlier levels. Exports of fresh oranges during the 1972/73 season totaled nearly 300,000 tons, 7 percent below the previous season. Canada remained the principal market, accounting for nearly half the total exported.

Fresh orange imports were higher during 1973 and totaled 60,873 tons, compared with 54,835 tons in 1972. Mexico provided the greatest share, 82 percent compared to 84 percent in 1972, while Israel's share increased in 1973 to 16 percent of the total volume imported.

Grapefruit

Although production prospects have declined from what would have been record levels, the U.S. grapefruit crop is still large. The current crop estimate at 64.6 million boxes for 1973/74 is nearly as much as last season and slightly above 2 seasons ago.

Nearly three-fourths of the U.S. grapefruit crop will be produced in Florida. As of February 1, the Florida crop is forecast at 46 million boxes. The current forecast has been reduced from earlier estimates since a smaller fruit size is projected based upon a measurement survey conducted during December 1973. Production at 11.5 million boxes in Texas is only 3 percent below 1972/73 levels.

Domestic movement of fresh grapefruit so far this season has been moderately below last year's pace. Fresh unloads in 41 major markets since the beginning of the season to early February were down about 11 percent. Unloads of Florida grapefruit declined 12 percent. Processed utilization of last season's total Florida grapefruit crop amounted to 28.4 million boxes, or nearly two-thirds of the crop. Total fresh utilization of the Florida crop may be higher than usual this season if export prospects remain good and less fruit is available from Texas for fresh markets.

Even though fresh grapefruit shipments from Texas through early February were slightly higher this season compared to a year earlier, deliveries to processing plants were up considerably as a result of the freezing temperatures in December. The delivered-in tonnage to processing plants through early February was nearly 2½ times greater than for the same period last season.

Since November, shipping point prices of Florida grapefruit remained relatively stable through late January at levels near a year ago. In early February prices declined to levels slightly below a year ago. F.o.b. prices in Texas were higher than last season until late in December. As a result of freezing temperatures in December, which caused deterioration and hastened the picking rate, fresh shipments from Texas increased substantially during most of January, causing f.o.b. prices in Texas to fall below year-ago levels.

The delivered-in price for grapefruit used for processing has averaged below year-ago levels in Florida and Texas, and is likely to continue so as more Texas fruit is diverted from fresh use into processing. Fresh grapefruit prices should hold at year-earlier levels or increase slightly if less fruit is available from Texas for the fresh market.

Export Outlook Good

Exports of fresh grapefruit continue strong in spite of the recent fuel crisis and some problems concerning the quality of fruit upon reaching the destination. Reports indicated that careless handling of exported fruit early in the season resulted in some waste and decay. However, industry spokesmen are still optimistic regarding exports of fresh grapefruit as long as high quality fruit is shipped and maintained.

During the first 4 months of the current season, September-December, fresh exports were 1.2 million boxes, 3 percent above the same period in 1972. Interest in U.S. grapefruit continues strong in Japan, a major importer since 1971/72.

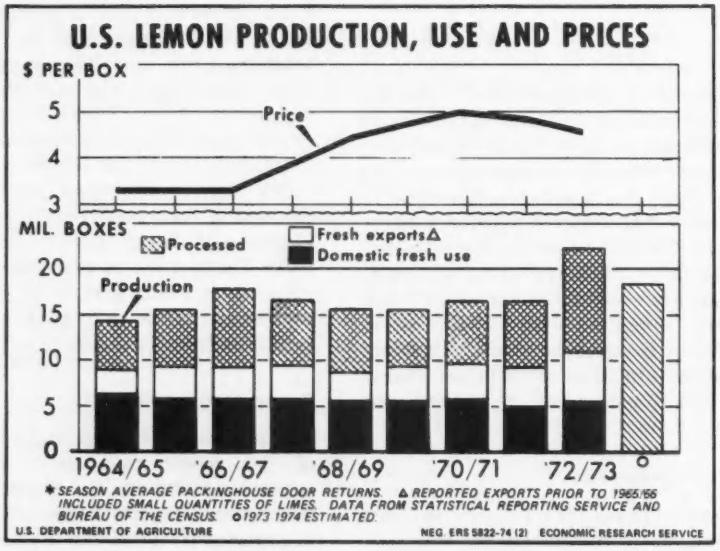
Lemons

U.S. Lemon Crop Down Substantially

Prospects in California and Arizona point to a 1973/74 crop of 18.2 million boxes or 692 thousand tons, 18 percent below last year's record high, but 9 percent above 1971/72 output. California's indicated production at 15 million boxes is down 15 percent from last year's level. The Arizona crop is now forecast at 3.2 million boxes, 30 percent below last season.

This season's domestic shipments of fresh lemons through early February were slightly above year-ago levels, while export shipments were slightly below. However, sales of lemons for processing use are down substantially reflecting the smaller crop. To date, shipping point prices have been substantially above last year's level, and are likely to continue so the remainder of this season, because of the smaller crop and firm domestic and foreign demand.

The following figure illustrates the relationship between U.S. lemon production, utilization, and prices. As shown, fresh use of lemons in the domestic market has been relatively stable since the 1964/65 season, but fresh export sales expanded significantly to 5.7 million boxes during 1972/73. Year to year changes in production cause processed utilization to vary greatly. In spite of the record crop in 1972/73, the season average price for lemons was firm at $4.60 per box (packinghouse-door returns), down slightly from $4.81 a year earlier.



Other Citrus

Florida's tangelo production at 4.2 million boxes is record large, and 20 percent above last season. Heavy movement was completed by February 1 with over 80 percent of the crop harvested. Slightly smaller crops of tangerines and temple oranges are now indicated. Florida's estimated 3.1 million boxes of tangerines total slightly larger than 1972/73, with harvest 90 percent complete by February 1. However, California and Arizona expected a substantially smaller tangerine crop this season.

Shipments of temple oranges were substantially below year-ago levels through early February and approaching their season peak, while shipping point prices were moderately below year-ago levels.

PROCESSED CITRUS

More oranges were used for processing so far this season. In Florida, 55.1 million boxes of oranges were processed by early February compared to 46.3 million boxes for the same period last season, since most fruit is reaching maturity earlier than last season. Grapefruit processing began at a relatively slow pace in Florida, but with deteriorating quality was gaining rapidly in Texas. Lemon processing is not likely to come up to last season's level because of the smaller crop this season. Supplies of most processed citrus products are relatively large and adequate to meet the apparent increasing demand for these items.

Frozen Concentrates

With a smaller 1973/74 Florida orange crop and lower juice yield per box projected, this season's total

pack of *frozen concentrated orange juice* (FCOJ) will be smaller than in 1972/73. The season average FCOJ yield is projected at 1.30 gallons of 45-degree Brix concentrate per 90-pound box, compared to last year's yield of 1.33 gallons.

Although the season's pack is expected to be lower, the pack this season through February 9 totaled 55.5 million gallons, one-fifth larger than a year ago. The pack to date is larger because harvest of early and midseason varieties is increasing rapidly, with most fruit reaching maturity earlier than last season.

With the heavier pack so far this season, plus a record carryover at the beginning of the season, processor stocks of FCOJ on February 9 were 76.4 million gallons, two-thirds above a year earlier. These levels of current stocks are not considered burdensome since increased product is needed to serve an expanded market.

F.o.b. prices of FCOJ (unadvertised brands, Florida canneries) remained constant since September at $1.88 per dozen 6-ounce cans. Total product movement reported by processors through February 9 was up 4 percent, an indication of continued strong demand for this product. The relatively stable U.S. retail price for FCOJ in December was 25.5 cents per 6-ounce can, up only 2 percent from a year ago. Exports of FCOJ for the first 2 months of the marketing season were 1.5 million gallons, 6 percent more than the same period last season.

In spite of the current level of available supply of FCOJ, continued increases in movement may result in higher f.o.b. cannery list prices in view of the smaller pack projected for the entire season.

At the beginning of this season, carryover stocks of *frozen concentrated grapefruit juice* (FCGJ) in Florida were 3.6 million gallons, 27 percent above year-earlier levels. For the first 2 months of the 1973/74 marketing season 1.7 million gallons of FCGJ were packed, nearly one-fifth below a year ago.

Total movement at 1 million gallons, on the other hand, was running 15 percent behind the same period of last season. Processor stocks of FCGJ on February 9 totaled 4.3 million gallons, substantially above a year ago.

Canned Products

The aggregate early-season pack (October through February 9, 1974) of canned Florida citrus products at 15.7 million cases (24/2's) was down 8 percent from the same period a year ago. A 23 percent decline in canned grapefruit juice was chiefly responsible. Early season movement of canned citrus items was down slightly. Despite a 10 percent larger carryover at the beginning of the season, stocks of all canned citrus products on hand February 9 at 11.8 million cases were slightly less than year-earlier levels. Available supplies of canned grapefruit juice were sharply below a year ago, but those of canned orange juice were considerably larger.

Despite the substantially larger stocks on hand, canned single-strength orange juice prices advanced from $4.00 to $4.25 (a dozen 46-oz. cans, f.o.b. Florida canneries) in mid-January. The price is now 15 percent above a year ago. On the other hand, f.o.b. prices of canned single-strength grapefruit juice have been stable at $4.25 (12/46-ounces, Florida canneries) since last September, but 20 cents below a year ago. However, in view of the current stocks on hand, 30 percent smaller than a year ago, f.o.b. prices of canned single-strength grapefruit juice may rise. With a relatively smaller citrus crop for the 1973/74 season in prospect, the total supply of canned citrus products is likely to be smaller than a year ago.

Chilled Products

Florida's pack of chilled citrus products was nearly 62 million gallons by February 9, up about 5 percent from a year earlier. Total movement of these products was also higher for this season through February 9 at about 57 million gallons compared to 53 million gallons last season. Processors' stocks were down slightly at 18.2 million gallons.

Chilled orange juice, the leading chilled citrus product, appears to be gaining in terms of consumer acceptance. The quantity of the product taken continues to grow. The total pack through February 9 was 50.8 million gallons, compared to 47.6 million gallons a year ago. The pack from fresh oranges was 34.4 million gallons, up 10 percent from this period

Florida oranges used for frozen concentrate

Crop year	Florida orange and Temple production	Used for frozen concentrates		Yield per box	Frozen concentrate orange juice pack[1]
	Million boxes	*Million boxes*[2]	*Percent*	*Gallons*	*Million gallons*
1968/69	134.2	92.1	68.6	1.13	103.8
1969/70	142.9	100.7	70.5	1.24	124.9
1970/71	147.3	103.5	70.3	1.21	125.2
1971/72	142.3	104.4	73.4	1.29	134.2
1972/73	174.8	132.2	75.6	1.33	176.1
1973/74	162.0			1.30	

[1] 45° Brix. [2] Includes small quantities of tangelos and Murcotts.

the previous year. Movement this season was 8 percent larger through February 9 at 48.3 million gallons while processors' stocks at 12.5 million gallons were slightly larger than last year. In December, the U.S. average retail price of chilled orange juice was 48.6 cents per quart, up from 47.6 cents a year earlier.

Chilled grapefruit juice stocks on February 9 were 3.2 million gallons, well below the 4.2 million gallons last year. Product movement was 5.9 million gallons, 6 percent higher than the same period last season. While the total pack to date was the same as last year, the pack from fresh fruit is down moderately reflecting a larger volume of reprocessed product.

FRESH NON-CITRUS

Utilized non-citrus fruit production during 1973 was over one-fourth more than the small crop of 1972 and 2 percent above the relatively large production of 1971. Production of most deciduous fruit crops was above 1972 levels. The nearly two-thirds larger grape crop, representing almost two-fifths of all non-citrus tonnage harvested, contributed significantly to the total gain in non-citrus fruit production. Excluding grapes, other non-citrus production was only up 12 percent.

Although non-citrus production was substantially larger, most grower prices for fresh fruit remained firm to moderately above year-earlier levels, reflecting strong domestic and foreign demand. Consequently, the total value of 1973 production for deciduous fruits and berries at $1.9 billion increased over 40 percent from 1972 and was 60 percent above 1971.

Apples

Crop Up Slightly

The 1973 utilized commercial apple crop is estimated at 6.1 billion pounds, 3 percent above 1972 but still 4 percent below 1971. The larger crop was due to higher production in the Western States, with Washington State producing a record crop of 1.8 billion pounds, up 29 percent from 1972. Production was down moderately in the Eastern States and considerably in the Central States, especially in Michigan, where production was down two-fifths.

Compared with 1972, regional production and changes were as follows: Eastern States, 2.4 billion pounds, down 5 percent; Central States, 0.9 billion pounds, down 32 percent; and Western States, 2.8 billion pounds, up 34 percent. With the sharp increase in Washington apple production, the Western States accounted for almost half of the U.S. apple crop, up from 36 percent in 1972. New York and Michigan contributed heavily to the decreases in both Eastern and Central States.

By individual varieties, the Red Delicious is still the leader. Production increased 23 percent and accounted for 35 percent of the total apple production compared with 29 percent last season. This chiefly reflected the substantially larger crop in Washington. The share from Golden Delicious remained at 1972's level of 16 percent of the total. Rome Beauty replaced McIntosh as the third leading variety in 1973. The table below provides some detail.

Stocks Up Substantially

Reflecting a larger crop, cold storage holdings of fresh apples on February 1 totaled 1.6 billion pounds, up almost a fifth from a year earlier. As expected, stocks in the Western States contributed most of the increase, while those in the Midwest were generally smaller. In Washington, cold storage holdings of approximately 0.9 billion pounds were up one-third. About 60 percent of the February stocks were in controlled-atmosphere storage, compared with almost 55 percent a year earlier.

Market Strong

Fresh apple movement so far this season has been running substantially above a year ago. Shipments

Apple production by leading varieties and State, 1973-74

Leading varieties	U.S. production	Percentage of U.S. total apple production	Leading producing States	State production as percentage of U.S. production by variety
	Million pounds	*Percent*		*Percent*
Delicious	2121.7	35	Washington	54
Golden Delicious	939.6	15	Washington	47
Rome Beauty	496.8	8	New York	18
McIntosh	481.0	8	New York	48
Jonathan	363.7	6	Michigan	32
York Imperial	315.7	5	Pennsylvania	36
Total	4718.5	78		

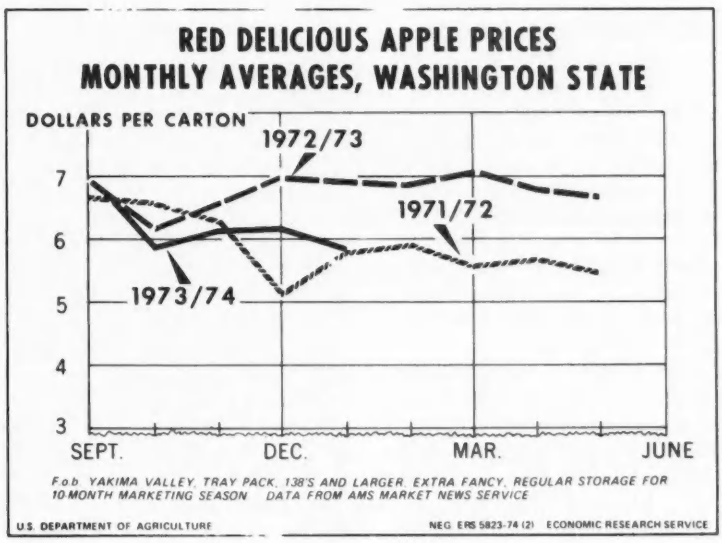
Apple cold storage holdings at end of month

Month	1971			1972			1973		
	Regular	C.A.	Total	Regular	C.A.	Total	Regular	C.A.	Total
	Billion pounds	*Billion pounds*	*Billion pounds*	*Billion pounds*	*Billion pounds*	*Billion pounds*	*Billion pounds*	*Billion pounds*	*Billion pounds*
Jan.	.82	.75	1.57	.80	.81	1.61	.52	.81	1.33
Feb.	.50	.67	1.17	.46	.72	1.18	.27	.70	.97
Mar.	.26	.51	.77	.22	.56	.78	.14	.42	.56
Apr.	.14	.33	.47	.11	.37	.48	.07	.27	.34
May	.08	.16	.24	.06	.17	.23	.04	.10	.14
June	.04	.04	.08	.04	.04	.08	.17	.29	.46
July	.18	.08	.26	.25	.06	.31	.05	.04	.09
Aug.	.12	.02	.14	.15	.02	.17	.15	.01	.16
Sept.	.64	.17	.81	.74	.21	.95	1.08	.28	1.36
Oct.	1.99	.77	2.76	1.64	.80	2.44	2.10	.84	2.94
Nov.	1.74	.82	2.56	1.37	.85	2.22	1.66	.88	2.54
Dec.	1.26	.83	2.09	.89	.85	1.74	1.16	.91	2.07

C.A. Controlled atmosphere.

from Washington where most of the apples are for fresh use ran nearly 14 percent larger through early February. However, from the beginning of the season to date, most fresh apple prices have been considerably higher than a year earlier. In January, the U.S. average price received by growers for fresh use was 10.4 cents per pound, one-fifth above a year ago. On the other hand, shipping point prices for Red Delicious at Yakima Valley, Washington, for carton tray pack, extra fancy, 125's and larger in early February were $5.62 compared with $6.85 a year ago.

Although the period of heavy movement of apples to processors is over, some usage by canners will continue into late winter and early spring. As reported earlier, prices paid by processors have averaged considerably above a year ago. In the East, where a very large proportion of apples is for processing use, prices of apples for processing use were reported more than double a year ago. For the remainder of the marketing season, continued strong domestic and foreign demand, smaller inventories of processed apple products, and a smaller U.S. citrus crop may cause apple prices to remain higher than a year ago even though fresh apple stocks are large. The U.S. season average price to growers for the 1973 apple crop (for all uses) has been estimated at 8.5 cents per pound, about one-third above 1972 prices. Total value of the U.S. commercial crop is therefore estimated at $512 million compared with $378 million in 1972.



Exports Strong

U.S. exports of fresh apples during July-December 1973 at approximately 96.2 million pounds were 44 percent above a year ago. The increase resulted from gains to Canada, the best customer for our apples, and to other areas outside Europe, including Mexico. Canada and areas outside Europe accounted for more than two-thirds of our apple exports in 1972/73, and for the first 6 months of this season, they accounted for 91 percent of our apple exports. Our apple exports to Europe so far this season were down substantially as preliminary data indicate the 1973 apple production in Europe recovered from the small crop in 1972. Thus, our apple exports to such historically prominent markets as the United Kingdom and West Germany are likely to decline from last season.

During July-December, U.S. imports of fresh apples totaled about 33 million pounds, down one-third from a year earlier. As usual, most imports came from Canada.

Pears

Total Crop Up Substantially from 1972

Total utilized production of pears in 1973 was 716,240 tons, almost 18 percent larger than the small 1972 crop, but only slightly above 2 years ago. The larger crop in the West was chiefly responsible for the increase, while the pear crop in the East and Michigan was smaller. About 678,200 tons, or 95 percent of the U.S. crop, were grown in the Pacific Coast States. Total 1973 utilized production in these States was one-fifth above 1972, with Oregon registering the largest gain over 1972's small crop.

Utilized production of Bartletts in the Pacific Coast States during 1973 totaled 510,000 tons, 17 percent larger than the short 1972 crop. Utilized production of other varieties, normally accounting for one-fifth of the pear crop, was 37 percent above last year's small crop.

Stocks Much Larger

The increased harvest of winter pears in the Pacific Northwest last fall has resulted in much larger storage stocks. Cold storage stocks of fresh pears on February 1, 1974, at 91.2 million pounds, were 46 percent above a year ago. Essentially all the holdings were fall and winter varieties in the Pacific Coast States. D'Anjou was the leading variety held in storage followed by Bosc.

Shipments of fresh pears through early February were moderately above a year ago. Opening f.o.b. prices for D'Anjou at Yakima, Wash., were substantially above year-earlier levels, but have been declining to levels below a year ago. In early-February, prices for U.S. No. 1 D'Anjou pears were reported at $6.55 per box, f.o.b. Yakima. This contrasts with $7.05 a year ago. With domestic supplies up sharply, prices will likely continue below year-earlier levels the rest of the marketing season. The U.S. season average prices to growers for the 1973 fresh pear crop has been tentatively estimated at $167 per ton, about 5 percent below 1972. But average grower prices for pears for processing use (except dried) are estimated at $121 per ton in 1973 compared with $113 in 1972.

Exports Sharply Larger

U.S. exports of fresh pears during July-December 1973 were about 1.5 million bushels, more than two-thirds larger than in the same months of 1972. Canada is still the principal importer of our pears, with an increase of one-half from last season. Exports to Europe, although relatively smaller in volume, are almost one and one-half times more than a year earlier despite the moderately smaller 1973 pear crop in the major exporting countries of France and Italy. But the crop in the United Kingdom, an important market for U.S. pears, was down approximately one-fifth from a year ago. Fresh pears exported to other parts of the world also increased sharply, up 70 percent from 1972.

Grapes

1973 Crop Up Sharply

Last season's U.S. utilized production of grapes was estimated at 4.2 million tons, the second largest crop on record and the highest production since the 4.4 million tons of 1965.

California's output of 3.9 million tons was almost three-fourths above the 1972 frost-damaged crop and one-tenth above 1971. The increase was spread through all varietal groups. Utilized production of table varieties, at 537,000 tons, almost doubled that of a year ago, and represented 14 percent of the California's grape crop. Wine varieties at 1,022,000 tons were up almost two-thirds and accounted for 26 percent of the crop. Output of raisin varieties, at 2,353,000 tons, showed an increase of three-fourths and represented 60 percent of the California crop. As the utilization of raisin varieties for wine continues to increase, less than half the output of raisin varieties (967,000 tons) went into raisin production. Crushing for wine accounted for more than 50 percent of total raisin variety tonnage. The remainder was used fresh or canned.

About 2.5 million tons of the 1973 California grape crop were crushed for wine through late January, up sharply from a year ago. Fresh grape shipments from California totaled over 22,000 carlot equivalents through early February, up 16 percent from a year earlier.

Grower Prices Lower

Due to the large crop, preliminary estimates place the average value of the 1973 California grape crop at $156 per ton, down from $161 per ton in 1972. Grower prices averaged lower for all varieties, with the exception of dried raisin varieties which were quoted at $700 vs. $560 per ton a year earlier. In early February, shipping point prices for Emperor f.o.b. Bakersfield, Calif., were reported at $5.00 per 23-pound lug. This was considerably below the $6.25 (25-pound lug) quoted for the extremely light supplies on hand in early February 1973. Fresh prices are expected to continue low for the remainder of the season in view of the larger February 1 stock, mostly Emperor, almost double a year ago.

Strawberries

Crop Up in 1973

U.S. commercial strawberry production totaled 477 million pounds in 1973, up 4 percent from the 1972 small crop, but still 8 percent below 2 years ago. The increase was recorded on a reduced acreage. The biggest gain in output was made in California last season, while most other States had smaller crops than in 1972. The larger California crop reflected both larger harvested acreage and improved yields, with average yield per acre up 8 percent from a year ago. California, continuing to increase its share of U.S. strawberry production, accounted for two-thirds of the 1973 crop. On the other hand, smaller crops were reported in Oregon and Washington, due to inadequate snow cover during freezing periods in the winter. Strawberry production from both States fell approximately one-tenth.

U.S. commercial production for the fresh market was down slightly from a year ago, while processing usage increased almost one-fifth. About two-thirds of the 1973 crop went to the fresh market. Grower prices for both fresh and processed uses averaged above a year earlier, $27.60 per cwt. in 1973 compared with $24 in 1972.

Current indications are that the 1974 Florida winter strawberry crop is in excellent condition following the cold snaps of December. Early picking has started, with peak production about mid-March.

Florida's winter crop normally accounts for less than 5 percent of U.S. production. The current estimate is for a harvest of 1,300 acres, down 100 acres from a year earlier. However, by the beginning of February unloads of fresh strawberries from Florida in major U.S. markets were considerably larger than a year ago, while unloads from Mexico were only slightly larger. Although opening f.o.b. prices for Florida strawberries were slightly above the high levels of a year ago, early-February shipping point prices for Florida strawberries, 12-pint flat, various varieties were $4.00 compared to $4.68 last year. Prices will continue to decline seasonally with increased volume.

Fresh Imports Down, While Frozen Imports Up

U.S. imports of fresh strawberries during 1973, mainly from Mexico, were about 38.9 million pounds, one-tenth below 1972. This has been the continuation of a decline since the record high of 51.3 million pounds in 1971. However, U.S. imports of frozen strawberries, also mainly from Mexico, were record large at 113.7 million pounds, one-third above 1972. The following table shows U.S. imports of fresh and frozen strawberries during the past 5 seasons.

U.S. strawberry imports

January-December	Fresh	Frozen
	Million pounds	*Million pounds*
1969	46.5	93.0
1970	51.1	109.7
1971	51.3	84.6
1972	43.2	85.2
1973	38.9	113.7

PROCESSED NON-CITRUS

As a result of the substantial increase in the Nation's production of non-citrus fruit during the 1973 season, nearly all the completed packs are running slightly to moderately above the 1972/73 output. However, because of the nearly depleted carryover at the beginning of the 1973/74 season plus good domestic and foreign demand, a tight supply situation for most processed non-citrus items will continue at least until the new pack season gets underway.

While new lists vary slightly from packer to packer, prices have all been raised, reflecting higher raw product costs, smaller supplies, and increased processing costs. The domestic market will undoubtedly remain firm, with some advance likely in retail prices during the months ahead.

Canned

Moderate Increase in 1973/74 Pack

Although the packing season is not completed, data available so far indicate that the 1973/74 U.S. pack of canned non-citrus fruit will be moderately larger than the reduced output of the preceding season. Complete packs of the leading canned fruit items reported to date are above a year ago except tart cherries and mixed fruit. The packs of these individual fruits are shown in table 12.

Despite the smaller apple crop from Eastern and Central regions, canning of both apple slices and applesauce was running moderately above a year ago through the first of the year. Although the bulk of apple canning was completed by January 1, commercial canning for these items will continue through the spring and final pack data will not be available until September. However, because of the nearly depleted carryover of the canned apple items at the beginning of the season, processors in the Central and Eastern States have been in active competition for available apple supplies in all regions including the West. Thus, with substantially larger cold storage holdings of apples, total pack of canned apple items for this season is likely to be above last season.

Packing of canned pineapple continues through spring; in early winter the 1973/74 pack was running behind a year ago.

Supplies Generally Tight

Despite the return to a more typical crop situation in 1973 and generally larger pack of non-citrus, the supply of most canned non-citrus items for the remainder of the season will be tight reflecting the nearly depleted carryover and slightly larger shipments so far this season. For canned non-citrus items available data indicate January 1, 1974, stocks were more than one-fifth below a year ago. (table 12).

Supplies of fruit cocktail available for the remainder of the season were at a new low. Cling peach stocks were also light as shipments to domestic and foreign markets continue strong. Canned pear supplies as of January 1 were more than a fifth smaller despite an 8 percent larger pack. The inventory of canned tart cherries on January 1 was particularly tight because of the reduced pack resulting from a sharply smaller crop, but stocks of canned sweet cherries were near year-earlier levels. However, the inventories of canned apricots and purple plums at the beginning of the year were larger than a year ago.

The canning season for apple products and pineapples is still in progress. Total supply of canned apple products to January 1 (carryover plus pack to Jan.1) was moderately below a year ago due to the nearly depleted carryover. With shipments to January 1 running 9 percent above last season, January 1 stocks of canned applesauce and apple slices were down 19 and 16 percent, respectively, from a year ago. Canned pineapple stocks on January 1 were also smaller, one-third below a year ago.

F.o.b. prices for individual canned fruits have largely reflected the changed supply situation. Prices for most items have been advancing this season as the smaller supply prospects have become more evident. The BLS index of wholesale canned fruit prices peaked at 122.2 (1967=100) in June 1973. It declined slightly in July, but has been advancing since August, reaching the record high of 135.1 in January. That was 13 percent above a year ago. Average monthly wholesale prices for the major canned fruits reported to date by BLS are shown in table 16. With substantially smaller stocks of most canned fruits on hand, wholesale prices are likely to continue to advance during the months ahead.

Exports Show Mixed Picture

Led by substantial increases in canned fruit cocktail and pineapples, U.S. aggregate exports of canned non-citrus fruit during June-December 1973 were slightly above those of the comparable period of 1972. Western Europe took 3.2 million cases (equiv. 24/2½'s), over 60 percent of total exports. . .about the same as a year ago. Canada and other parts of the world shared in the increases. Total exports of canned peaches were about the same as last year, as the decrease in shipments to Europe offset increases to Canada and other countries. Some canned fruit exports which decreased so far this season were apricots, cherries, and pears. However, with the tight world supply situation for certain canned fruit items, export prospects are good, assuming the fuel situation does not cause severe recession abroad nor interrupt international shipping, and U.S. supplies are available.

U.S. exports of canned fruit, June-December

Item	1971	1972	1973
	Million pounds	*Million pounds*	*Million pounds*
Apricots	2.3	5.4	3.7
Cherries	1.8	23.1	12.8
Peaches	75.4	90.5	89.4
Pears	4.8	8.0	6.3
Pineapple	36.5	48.8	58.0
Fruit cocktail	44.1	59.5	68.2

Frozen

The total supply of frozen non-citrus fruits and berries in cold storage February 1 was slightly above the year-earlier volume. Largest increases were recorded for blueberries, peaches, and strawberries.

Strawberries are the leading frozen fruit. Storage stocks on February 1 were up almost one-fifth from a year ago reflecting increased imports of frozen fruit from Mexico. The Mexican pack continues to be heavier than usual for this time of the year due mainly to a shortage of trucks to bring fresh products to market. However, despite the large supply, wholesale prices for frozen strawberries advanced during 1973, and at $3.85 per doz. 10 oz. packages in January, were 14 percent above the year-earlier level.

Stocks of frozen peaches on February 1 were 62 percent above the sharply reduced stocks of a year ago, and frozen apple stocks were also larger, even with a substantially smaller crop in the East. With the packing season still in progress, the total season supply of frozen apples will likely be larger than a year ago. Frozen blueberry holdings were almost 55 percent larger than a year earlier.

The frozen tart cherry pack was substantially smaller in 1973 and disappearance has also been smaller. Cold storage stocks were 45 percent below the February 1, 1973 volume.

Frozen fruit cold storage holdings

Commodity	February 1		
	1972	1973	1974
	1,000 pounds	*1,000 pounds*	*1,000 pounds*
Apples	76,241	67,464	71,703
Apricots	8,082	9,494	9,369
Cherries	87,035	81,176	44,500
Grapes	4,698	4,899	4,672
Peaches	43,328	25,792	41,663
Blackberries	13,412	11,799	7,780
Blueberries	21,731	20,689	32,076
Boysenberries	3,257	2,869	2,989
Raspberries, black	1,202	864	1,234
Raspberries, red	11,429	10,465	13,759
Strawberries	135,908	92,704	108,739
Other fruits and berries	136,229	152,739	145,803
Total	542,552	480,954	484,287

Dried

U.S. dried fruit production in 1973/74 for three principal fruits—raisins, prunes, and figs—was sharply above last season's limited output. Total raisin output for 1973 is estimated at 215,000 tons (dried basis), more than double a year ago. Production of California dried prunes was also sharply larger in 1973, with output estimated at 203,000 tons (dried basis) compared with only 77,000 tons in 1972. At 11,700 tons, dried fig output was 7 percent more than in 1972 but more than one-tenth less than in 1971.

Although carryover stocks of raisins into the 1973/74 marketing season were negligible, total supplies are larger. Total raisin shipments through the end of January 1974 were running almost three-fifths larger as packers were busy attempting to fill the market pipelines. Domestic shipments were up over 40 percent. During the first 5 months of the current season more than 26,980 tons were exported, over one and one-half times last season. The foreign crop of raisins in major producing areas has been estimated almost one-fourth smaller than a year ago. U.S. export prospects will continue bright assuming no severe recession abroad.

Reflecting strong domestic and foreign demand, raisin prices have increased substantially. In January the average wholesale price of raisins was record high at $12.12 per case (24/15 oz.), representing an increase of over one-fourth from a year earlier. The 1973 season average price received by growers has been estimated at $700 per ton (dried basis processing plant door), up one-fourth from the preceding season. The farm value for the raisin crop totaled $150.5 million compared with $58.8 million in 1972.

Although large volumes of prunes have moved into domestic and export markets, the remaining supply at the end of 1973 was still heavy at 123,000 tons (processed condition) almost double that of a year ago. During the first 5 months through December, shipments to domestic markets were running 30 percent larger than a year ago, while nearly 35,000 tons were exported, almost twice as much as a year ago. However, in an effort to relieve the burdensome supply of prunes, the USDA recently made surplus removal purchases of dried prunes for distribution through needy family programs.

In spite of a large supply, the average wholesale price of prunes has been steady at $9.60 per case (24/1 pound) since December 1972. But the average grower price for 1973 has been estimated at $471 per ton (dried basis), down 12 percent from the previous season.

TREE NUTS

Estimated production of 4 major domestic tree nuts at 443,800 tons in 1973 is 29 percent above the small crop of a year ago.

The 1973 California *almond* production is estimated at 133,000 tons (in-shell basis), up 6 percent from a year ago. After a brief interruption in 1972, production thus has resumed the upward trend in line with a steady long-term trend in bearing acreage. Domestic demand is generally good as most shellers have committed just about all of this season's available supply. Export shipments have been slackening even though the major almond producing countries in Europe have shown substantially smaller production in 1973. During the first 5 months (August-December) exports of shelled almonds were 4 percent below a year ago. Consequently, total export sales for this season are likely to account for a smaller share of the current crop than last season. The U.S. season average price to growers for the 1973 almond crop has been estimated at $1,500 per ton, almost double that of a year ago.

The 1973 production of *pecans* is estimated at 129,950 tons, 42 percent more than in 1972 and 5 percent above 1971. As a result of the substantially larger production, cold storage holdings of both

shelled pecans and in-shell pecans on February 1 were considerably above year-earlier levels. The preliminary estimate of season-average price to growers is 38.6 cents per pound compared with 42.4 cents last season.

U.S. production of *walnuts* in 1973 is listed at 168,900 tons, up 45 percent from the small crop in 1972. Demand so far this season has been good and season-average price to growers is tentatively estimated at $580 per ton, up slightly from a year ago.

Filbert output has been set at 11,950 tons in 1973, up almost one-fifth from last year. The season-average price to growers is estimated at $630 per ton compared with $508 last season.

Table 1—Fruit and edible tree nuts: Utilized production and value, United States, crop year 1971, 1972, and 1973

Commodity	Utilized production			Value of production		
	Crop year			Crop year		
	1971	1972	1973[1]	1971	1972	1973[1]
	1,000 tons	*1,000 tons*	*1,000 tons*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
NONCITRUS:						
Apples, commercial	3,040	2,935	3,028	299,121	377,670	511,874
Apricots, 3 States	150	127	158	14,035	17,701	25,809
Avocados, 2 States[2]	45	89	n.a.	31,218	44,153	n.a.
Bananas, Hawaii	3	3	4	680	720	778
Bushberries, 2 States	34	31	22	12,258	17,925	20,183
Cherries, sweet	140	85	153	44,215	36,582	55,503
Cherries, tart	139	135	88	27,689	22,279	33,103
Cranberries	[4]82	99	104	24,405	26,035	n.a.
Dates, California	19	16	20	3,110	2,652	3,518
Figs, California	45	36	40	3,959	5,121	8,436
Grapes	3,997	2,570	4,218	381,620	423,132	671,235
Nectarines	69	86	87	10,695	15,222	22,098
Olives, California	55	24	73	8,140	10,043	26,062
Papayas, Hawaii	10	13	16	2,736	3,423	4,235
Peaches	1,370	1,148	1,226	166,568	160,383	204,349
Pears	707	608	716	66,768	84,357	101,173
Persimmons	1	2	2	151	467	688
Plums, California	101	96	97	23,129	23,808	31,137
Pomegranates	3	4	4	410	460	638
Prunes, California	393	215	589	37,597	41,195	95,613
Prunes and plums, other States	65	42	65	5,770	7,228	9,796
Strawberries	260	229	239	117,005	109,765	131,592
Total noncitrus	10,728	8,603	10,949	1,281,279	1,430,321	n.a.
CITRUS:						
Oranges	8,222	8,237	9,739	465,109	549,136	564,402
Tangerines	233	221	223	18,374	22,767	20,621
Grapefruit	2,472	2,623	2,663	145,287	185,586	178,672
Lemons	625	634	844	82,226	80,266	102,230
Limes, Florida	35	44	44	4,136	6,039	6,908
Tangelos, Florida	122	176	158	5,643	10,959	8,225
Temples, Florida	225	239	230	13,900	15,317	14,280
Total citrus	11,934	12,174	13,901	734,675	870,070	895,338
TREE NUTS:						
Almonds, California	134	125	133	87,100	98,125	199,500
Filberts, 2 States	11	10	12	4,708	5,157	7,531
Macadamia nuts, Hawaii	7	7	6	3,569	3,055	2,639
Pecans	124	92	130	81,518	77,636	100,256
Walnuts, 2 States	136	117	169	57,106	65,854	97,917
Total tree nuts	412	[4]351	450	234,001	249,827	407,843
Total all fruits and nuts	23,074	[4]21,128	25,300	2,249,955	2,550,218	n.a.

[1] Preliminary. [2] 1971 indicates 1971/72 crop. [3] 1971 indicates 1970/71 crop. [4] Due to rounding, totals are not identical in table 3.

n.a.—Data not available temporarily.

Table 2– Citrus fruit: Production, 1971/72, 1972/73 and indicated 1973/74[1]

Crop and State	1971/72	1972/73	1973/74
	1,000 boxes[2]	*1,000 boxes*[2]	*1,000 boxes*[2]
Oranges:			
Early, Midseason and Navel varieties:[3]			
California	22,300	18,700	21,000
Florida	68,800	90,000	85,000
Texas	3,800	5,000	4,600
Arizona	900	1,060	500
Total	95,800	114,760	111,100
Valencias:			
California	21,100	23,400	17,000
Florida	68,200	79,700	72,000
Texas	2,000	2,400	2,400
Arizona	4,000	4,000	3,000
Total	95,300	109,500	94,400
All Oranges:			
California	43,400	42,100	38,000
Florida	137,000	169,700	157,000
Texas	5,800	7,400	7,000
Arizona	4,900	5,060	3,500
Total oranges	191,000	224,260	205,500
Grapefruit:			
Florida, all	47,000	45,400	46,000
Seedless	36,100	35,200	36,000
Pink	12,300	11,700	12,000
White	23,800	23,500	24,000
Other	10,900	10,200	10,000
Texas	9,200	11,800	11,500
Arizona	2,540	2,640	2,400
California, all	5,400	5,400	4,700
Desert Valleys	3,200	3,000	2,800
Other areas	2,200	2,400	1,900
Total grapefruit	64,140	65,240	64,600
Lemons:			
California	13,600	17,600	15,000
Arizona	3,080	4,600	3,200
Total lemons	16,680	22,200	18,200
Limes:			
Florida	1,100	1,100	1,200
Tangelos:			
Florida	3,900	3,500	4,200
Tangerines:			
Florida	3,200	3,000	3,100
Arizona	570	530	400
California	1,260	1,600	1,300
Total tangerines	5,030	5,130	4,800
Temples:			
Florida	5,300	5,100	5,000

[1] The crop year begins with bloom of the first year and ends with completion of harvest the following year. [2] Net content of box varies. Approximate averages are as follows: Oranges-California and Arizona, 75 lbs.; other States, 90 lbs.; Grapefruit-California, Dersert Valleys, and Arizona, 64 lbs.; other California areas, 67 lbs.; Florida, 85 lbs. and Texas, 80 lbs.; Lemons-76 lbs.; Limes-80 lbs.; Tangelos-90 lbs.; Tangerines-California and Arizona, 75 lbs.; Florida, 95 lbs.; and Temples-90 lbs. [3] Navel and Miscellaneous varieties in California and Arizona. Early and Midseason varieties in Florida and Texas, including small quantities of tangerines in Texas.

Table 3.—Fruit and edible tree nuts: Utilized production by States, United States, 1972

State	Noncitrus fruits												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Other[1]	Total	
			Sweet	Tart								Quantity	Percent of U.S.
	1,000 tons	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tsns*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*Percent*
Maine	37.5	---	---	---	---	---	---	---	---	---	---	37.5	0.4
N.H.	27.5	---	---	---	---	---	0.4	---	---	---	---	27.9	.3
Vt.	20.3	---	---	---	---	---	---	---	---	---	---	20.3	.2
Mass.	45.5	---	---	---	41.0	---	1.3	---	---	0.5	---	88.3	1.0
R.I.	1.6	---	---	---	---	---	.1	---	---	---	---	1.7	(*)
Conn.	15.0	---	---	---	---	---	1.2	2.0	---	---	---	18.2	.2
N.Y.	385.0	---	4.5	14.6	---	103.0	8.5	18.5	---	1.6	---	535.7	6.2
N.J.	44.0	---	---	---	9.8	.6	12.5	---	---	2.3	---	69.2	.8
Pa.	200.0	---	.1	6.8	---	37.6	40.0	2.9	---	2.0	---	289.4	3.4
Ohio	67.5	---	---	.4	---	12.0	.5	---	---	2.8	---	83.2	1.0
Ind.	37.5	---	---	---	---	---	.2	---	---	1.2	---	38.9	.5
Ill.	50.0	---	---	---	---	---	6.0	---	---	2.0	---	58.0	.7
Mich.	365.0	---	28.0	107.0	---	53.0	5.0	22.5	14.0	10.6	---	605.1	7.0
Wis.	32.5	---	---	4.6	35.4	---	---	---	---	1.6	---	74.1	.9
Minn.	13.0	---	---	---	---	---	---	---	---	---	---	13.0	.2
Iowa	6.6	---	---	---	---	---	---	---	---	---	---	6.6	.1
Mo.	30.0	---	---	---	---	3.6	10.0	---	---	1.1	---	44.7	.5
Kans.	6.0	---	---	---	---	---	.8	---	---	---	---	6.8	.1
Del.	5.5	---	---	---	---	---	.5	---	---	---	---	6.0	.1
Md.	33.0	---	---	---	---	---	6.2	---	---	.8	---	40.0	.5
Va.	210.0	---	---	---	---	---	11.0	---	---	.8	---	221.8	2.6
W. Va.	107.5	---	---	---	---	---	6.5	---	---	---	---	114.0	1.3
N.C.	122.5	---	---	---	---	2.2	12.5	---	---	1.0	---	138.2	1.6
S.C.	10.0	---	---	---	---	[2]6.4	110.0	---	---	---	---	126.4	1.5
Ga.	---	---	---	---	---	---	95.0	---	---	---	---	95.0	1.1
Fla.	---	---	---	---	---	---	---	---	---	10.0	18.7	28.7	.3
Ky.	7.1	---	---	---	---	---	2.5	---	---	1.2	---	10.8	.1
Tenn.	4.6	---	---	---	---	---	4.3	---	---	1.2	---	10.1	.1
Ala.	---	---	---	---	---	---	12.0	---	---	---	---	12.0	.1
Miss.	---	---	---	---	---	---	8.5	---	---	---	---	8.5	.1
Ark.	4.3	---	---	---	---	9.5	21.0	---	---	1.6	---	36.4	.4
La.	---	---	---	---	---	---	3.5	---	---	3.6	---	7.1	.1
Okla.	---	---	---	---	---	---	3.1	---	---	1.2	---	4.3	.1
Texas	---	---	---	---	---	---	14.5	---	---	.4	---	14.9	.2
Mont.	---	---	1.2	---	---	---	---	---	---	---	---	1.2	(*)
Idaho	25.0	---	.6	---	---	---	1.0	.8	7.1	---	---	34.5	.4
Colo.	5.5	---	.2	.5	---	---	3.5	2.8	---	---	---	12.5	.1
N. Mex.	1.0	---	---	---	---	---	---	---	---	---	---	1.0	(*)
Ariz.	---	---	---	---	---	13.6	---	---	---	---	---	13.6	.2
Utah	2.0	---	---	.6	---	---	.8	.2	---	---	---	3.6	(*)
Wash.	695.0	1.4	21.2	---	7.4	62.1	13.8	153.0	12.4	12.2	8.5	987.0	11.5
Ore.	52.5	---	19.2	.9	5.2	---	3.5	110.0	8.4	27.1	22.6	249.4	2.9
Calif.	265.0	126.0	20.0	---	---	2,266.0	728.0	295.6	310.8	142.4	237.5	4,391.3	51.0
Hawaii	---	---	---	---	---	---	---	---	---	---	15.9	15.9	.2
U.S.	2,935.0	127.4	95.0	135.4	98.8	2,569.6	1,148.2	608.3	352.7	229.2	303.2	8,602.8	100.0

See footnotes at end of table.

—Continued

Table 3.—Fruit and edible tree nuts: Utilized production, by States, United States, 1972—Continued

State	Citrus fruits[3]						Total all fruits		Tree nuts				Total all fruits all tree nuts	
	Oranges	Grapefruit	Lemons	Other[4]	Total		Quantity	Percent of U.S.	Pecans	Other[5]	Total		Quantity	Percent of U.S.
					Quantity	Percent of U.S.					Quantity	Percent of U.S.		
	1,000 tons	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*Percent*	*1,000 tons*	*Percent*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*Percent*	*1,000 tons*	*Percent*
Maine	---	---	---	---	---	---	37.5	0.2	---	---	---	---	37.5	0.2
N.H.	---	---	---	---	---	---	27.9	.1	---	---	---	---	27.9	.1
Vt.	---	---	---	---	---	---	20.3	.1	---	---	---	---	20.3	.1
Mass.	---	---	---	---	---	---	88.3	.4	---	---	---	---	88.3	.4
R.I.	---	---	---	---	---	---	1.7	(6)	---	---	---	---	1.7	(6)
Conn.	---	---	---	---	---	---	18.2	.1	---	---	---	---	18.2	.1
N.Y.	---	---	---	---	---	---	535.7	2.6	---	---	---	---	535.7	2.5
N.J.	---	---	---	---	---	---	69.2	.3	---	---	---	---	69.2	.3
Pa.	---	---	---	---	---	---	289.4	1.4	---	---	---	---	289.4	1.4
Ohio	---	---	---	---	---	---	83.2	.4	---	---	---	---	83.2	.4
Ind.	---	---	---	---	---	---	38.9	.2	---	---	---	---	38.9	.2
Ill.	---	---	---	---	---	---	58.0	.3	---	---	---	---	58.0	.3
Mich.	---	---	---	---	---	---	605.1	2.9	---	---	---	---	605.1	2.9
Wis.	---	---	---	---	---	---	74.1	.4	---	---	---	---	74.1	.4
Minn.	---	---	---	---	---	---	13.0	.1	---	---	---	---	13.0	.1
Iowa	---	---	---	---	---	---	6.6	(6)	---	---	---	---	6.6	(6)
Mo.	---	---	---	---	---	---	44.7	.2	---	---	---	---	44.7	.2
Kans.	---	---	---	---	---	---	6.8	(6)	---	---	---	---	6.8	(6)
Del.	---	---	---	---	---	---	6.0	(6)	---	---	---	---	6.0	(6)
Md.	---	---	---	---	---	---	40.0	.2	---	---	---	---	40.0	.2
Va.	---	---	---	---	---	---	221.8	1.1	---	---	---	---	221.8	1.0
W. Va.	---	---	---	---	---	---	114.0	.5	---	---	---	---	114.0	.5
N.C.	---	---	---	---	---	---	138.2	.7	0.2	---	0.2	0.1	138.4	.7
S.C.	---	---	---	---	---	---	126.4	.6	.1	---	.1	(6)	126.5	.6
Ga.	---	---	---	---	---	---	95.0	.4	24.0	---	24.0	6.8	119.0	.6
Fla.	6,165.0	1,998.0	---	611.0	8,774.0	72.1	8,802.7	42.4	3.2	---	3.2	.9	8,805.9	41.7
Ky.	---	---	---	---	---	---	10.8	.1	---	---	---	---	10.8	.1
Tenn.	---	---	---	---	---	---	10.1	(6)	---	---	---	---	10.1	(6)
Ala.	---	---	---	---	---	---	12.0	.1	10.0	---	10.0	2.8	22.0	.1
Miss.	---	---	---	---	---	---	8.5	(6)	3.5	---	3.5	1.0	12.0	.1
Ark.	---	---	---	---	---	---	36.4	.2	.9	---	.9	.3	37.3	.2
La.	---	---	---	---	---	---	7.1	(6)	6.0	---	6.0	1.7	13.1	.1
Okla	---	---	---	---	---	---	4.3	(6)	2.1	---	2.1	.6	6.4	(6)
Texas	261.0	368.0	---	---	629.0	5.2	643.9	3.1	37.5	---	37.5	10.7	681.4	3.2
Mont.	---	---	---	---	---	---	1.2	(6)	---	---	---	---	1.2	(6)
Idaho	---	---	---	---	---	---	34.5	.2	---	---	---	---	34.5	.2
Colo.	---	---	---	---	---	---	12.5	.1	---	---	---	---	12.5	.1
N. Mex.	---	---	---	---	---	---	1.0	(6)	4.1	---	4.1	1.2	5.1	(6)
Ariz.	183.8	81.3	117.0	21.4	403.5	3.3	417.1	2.0	---	---	---	---	417.1	2.0
Utah	---	---	---	---	---	---	3.6	(6)	---	---	---	---	3.6	(6)
Wash.	---	---	---	---	---	---	987.0	4.8	---	0.6	.6	.2	987.6	4.7
Ore.	---	---	---	---	---	---	249.4	1.2	---	10.4	10.4	3.0	259.8	1.2
Calif.	1,627.0	175.7	517.0	47.3	2,367.0	19.4	6,758.3	32.5	---	241.0	241.0	68.8	6,999.3	33.1
Hawaii	---	---	---	---	---	---	15.9	.1	---	6.6	6.6	1.9	22.5	.1
U.S.	8,236.8	2,623.0	634.0	679.7	12,173.5	100.0	20,776.3	100.0	91.6	258.6	350.2	100.0	21,126.5	100.0

[1] Avocado 1972/73 crop, bananas, bushberries, dates, figs, nectarines, olives, papayas, persimmons, and pomegranates, [2] Includes Georgia, [3] 1971/72 crop, [4] Tangerines, limes, tangelos, and temples, [5] Almonds, filberts, Macadamia nuts and walnuts, [6] Less than 0.05 percent.

Table 4—Fruit and edible tree nuts: Value of production, by States, United States, 1972

State	Noncitrus fruits												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Other[1]	Total	
			Sweet	Tart								Value	Percent of U.S.
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*Percent*
Maine	7,283	---	---	---	---	---	---	---	---	---	---	7,283	0.5
N.H.	5,308	---	---	---	---	---	130	---	---	---	---	5,438	.4
Vt.	3,756	---	---	---	---	---	---	---	---	---	---	3,756	.3
Mass.	8,454	---	---	---	10,319	---	459	---	---	435	---	19,667	1.4
R.I.	306	---	---	---	---	---	36	---	---	---	---	342	([6])
Conn.	2,979	---	---	---	---	---	432	440	---	---	---	3,851	.3
N.Y.	44,429	---	905	2,424	---	18,849	2,040	2,239	---	913	---	71,799	5.0
N.J.	6,530	---	---	---	2,470	138	4,275	---	---	1,633	---	15,046	1.1
Pa.	21,680	---	79	1,300	---	6,392	10,400	578	---	1,736	---	42,165	2.9
Ohio	9,990	---	---	82	---	2,184	200	---	---	1,646	---	14,102	1.0
Ind.	5,595	---	---	---	---	---	67	---	---	660	---	6,322	.4
Ill.	7,280	---	---	---	---	---	1,115	---	---	897	---	9,292	.6
Mich.	31,390	---	5,460	17,227	---	9,116	1,070	2,000	1,946	5,218	---	73,427	5.1
Wis.	4,973	---	---	811	9,997	---	---	---	---	1,117	---	16,898	1.2
Minn.	2,353	---	---	---	---	---	---	---	---	---	---	2,353	.2
Iowa	1,463	---	---	---	---	---	---	---	---	---	---	1,463	.1
Mo.	5,298	---	---	---	---	641	3,216	---	---	500	---	9,655	.7
Kans.	659	---	---	---	---	---	153	---	---	---	---	811	.1
Del.	669	---	---	---	---	---	125	---	---	---	---	794	.1
Md.	4,541	---	---	---	---	---	1,788	---	---	525	---	6,854	.5
Va.	23,940	---	---	---	---	---	2,171	---	---	505	---	26,616	1.9
W. Va.	12,105	---	---	---	---	---	1,677	---	---	---	---	13,782	1.0
N.C.	11,197	---	---	---	---	715	2,625	---	---	580	---	15,117	1.0
S.C.	1,482	---	---	---	---	[2]1,378	22,660	---	---	---	---	25,520	1.8
Ga.	---	---	---	---	---	---	16,853	---	---	---	---	16,853	1.2
Fla.	---	---	---	---	---	---	---	---	---	6,320	6,003	12,323	.9
Ky.	946	---	---	---	---	---	575	---	---	718	---	2,239	.2
Tenn.	607	---	---	---	---	---	624	---	---	743	---	1,974	.1
Ala.	---	---	---	---	---	---	2,688	---	---	---	---	2,688	.2
Miss.	---	---	---	---	---	---	1,989	---	---	---	---	1,989	.1
Ark.	479	---	---	---	---	1,587	3,263	---	---	941	---	6,270	.4
La.	---	---	---	---	---	---	875	---	---	2,052	---	2,927	.2
Okla.	---	---	---	---	---	---	458	---	---	593	---	1,051	.1
Texas	---	---	---	---	---	---	3,190	---	---	266	---	3,456	.2
Mont.	---	---	574	---	---	---	---	---	---	---	---	574	([6])
Idaho	4,620	---	342	---	---	---	210	144	1,558	---	---	6,874	.5
Colo.	1,441	---	121	118	---	---	994	475	---	---	---	3,149	.2
N. Mex.	200	---	---	---	---	---	---	---	---	---	---	200	([6])
Ariz.	---	---	---	---	---	7,548	---	---	---	---	---	7,548	.5
Utah	355	---	---	133	---	---	200	43	---	---	---	731	([6])
Wash.	114,119	313	9,328	---	1,939	9,626	2,626	23,436	2,195	4,556	5,258	173,396	12.1
Ore.	6,069	---	8,333	184	1,310	---	861	16,488	1,529	9,647	12,667	57,088	4.0
Calif.	25,175	17,388	11,440	---	---	364,958	70,338	38,514	65,003	67,564	72,115	732,495	51.2
Hawaii	---	---	---	---	---	---	---	---	---	---	4,143	4,143	.3
U.S.	377,670	17,701	36,582	22,279	26,035	423,132	160,383	84,357	72,231	109,765	100,186	1,430,321	100.0

See footnotes at end of table.

—Continued

Table 4—Fruit and edible tree nuts: Value of production by States, United States, 1972[1]—Continued

State	Citrus fruits[3]						Total all fruits		Tree nuts				Total of all fruit and tree nuts	
	Oranges	Grapefruit	Lemons	Other[4]	Total		Value	Percent of U.S.	Pecans	Other[5]	Total		Value	Percent of U.S.
					Value	Percent of U.S.					Value	Percent of U.S.		
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	Percent	1,000 dollars	Percent	1,000 dollars	1,000 dollars	1,000 dollars	Percent	1,000 dollars	Percent
Maine	—	—	—	—	—	—	7,283	0.3	—	—	—	—	7,283	0.3
N.H.	—	—	—	—	—	—	5,438	.2	—	—	—	—	5,438	.2
Vt.	—	—	—	—	—	—	3,756	.2	—	—	—	—	3,756	.1
Mass.	—	—	—	—	—	—	19,667	.9	—	—	—	—	19,667	.8
R.I.	—	—	—	—	—	—	342	(*)	—	—	—	—	342	(*)
Conn.	—	—	—	—	—	—	3,851	.2	—	—	—	—	3,851	.2
N.Y.	—	—	—	—	—	—	71,799	3.1	—	—	—	—	71,799	2.8
N.J.	—	—	—	—	—	—	15,046	.7	—	—	—	—	15,046	.6
Pa.	—	—	—	—	—	—	42,165	1.8	—	—	—	—	42,165	1.7
Ohio	—	—	—	—	—	—	14,102	.6	—	—	—	—	14,102	.6
Ind.	—	—	—	—	—	—	6,322	.3	—	—	—	—	6,322	.2
Ill.	—	—	—	—	—	—	9,292	.4	—	—	—	—	9,292	.4
Mich.	—	—	—	—	—	—	73,427	3.2	—	—	—	—	73,427	2.9
Wis.	—	—	—	—	—	—	16,898	.7	—	—	—	—	16,898	.7
Minn.	—	—	—	—	—	—	2,353	.1	—	—	—	—	2,353	.1
Iowa	—	—	—	—	—	—	1,463	.1	—	—	—	—	1,463	.1
Mo.	—	—	—	—	—	—	9,655	.4	—	—	—	—	9,655	.4
Kans.	—	—	—	—	—	—	811	(*)	—	—	—	—	811	(*)
Del.	—	—	—	—	—	—	794	(*)	—	—	—	—	794	(*)
Md.	—	—	—	—	—	—	6,864	.3	—	—	—	—	6,864	.3
Va.	—	—	—	—	—	—	26,616	1.2	—	—	—	—	26,616	1.0
W. Va.	—	—	—	—	—	—	13,782	.6	—	—	—	—	13,782	.5
N.C.	—	—	—	—	—	—	15,117	.7	188	—	188	0.1	15,305	.6
S.C.	—	—	—	—	—	—	25,520	1.1	41	—	41	(*)	25,561	1.0
Ga.	—	—	—	—	—	—	16,863	.7	21,600	—	21,600	8.6	38,463	1.5
Fla.	402,738	142,753	—	47,195	592,686	68.1	606,009	26.3	2,656	—	2,656	1.1	607,665	23.8
Ky.	—	—	—	—	—	—	2,239	.1	—	—	—	—	2,239	.1
Tenn.	—	—	—	—	—	—	1,974	.1	—	—	—	—	1,974	.1
Ala.	—	—	—	—	—	—	2,688	.1	8,390	—	8,390	3.4	11,078	.4
Miss.	—	—	—	—	—	—	1,989	.1	2,800	—	2,800	1.1	4,789	.2
Ark.	—	—	—	—	—	—	6,270	.3	747	—	747	.3	7,017	.3
La.	—	—	—	—	—	—	2,927	.1	4,425	—	4,425	1.8	7,352	.3
Okla.	—	—	—	—	—	—	1,051	.1	1,716	—	1,716	.7	2,767	.1
Texas	12,006	20,332	—	—	32,338	3.7	35,794	1.6	30,780	—	30,780	12.3	66,574	2.6
Mont.	—	—	—	—	—	—	574	(*)	—	—	—	—	574	(*)
Idaho	—	—	—	—	—	—	6,874	.3	—	—	—	—	6,874	.3
Colo.	—	—	—	—	—	—	3,149	.1	—	—	—	—	3,149	.1
N. Mex.	—	—	—	—	—	—	200	(*)	4,293	—	4,293	1.7	4,493	.2
Ariz.	11,234	5,309	11,858	2,759	31,160	3.6	38,708	1.7	—	—	—	—	38,708	1.5
Utah	—	—	—	—	—	—	731	(*)	—	—	—	—	731	(*)
Wash.	—	—	—	—	—	—	173,396	7.5	—	280	280	.1	173,676	6.8
Ore.	—	—	—	—	—	—	57,088	2.5	—	5,307	5,307	2.1	62,395	2.4
Calif.	123,158	17,192	68,408	5,128	213,886	24.6	946,381	41.1	—	163,549	163,549	65.5	1,109,930	43.5
Hawaii	—	—	—	—	—	—	4,143	.2	—	3,055	3,055	1.2	7,198	.3
U.S.	549,136	185,586	80,266	55,082	870,070	100.0	2,300,391	100.0	77,636	172,191	249,827	100.0	2,550,218	100.0

[1] Avocado 1972/73 crop, bananas, bushberries, dates, figs, nectarines, olives, papayas, persimmons, and pomegranates. [2] Includes Georgia. [3] 1971/72 crop. [4] Tangerines, limes, tangelos, and temples. [5] Almonds, filberts, Macadamia nuts and walnuts. [6] Less than 0.05 percent.

Table 5.—Fruit and edible tree nuts: Season average prices per unit received by growers, 1971, 1972 and 1973[1]

Commodity	Unit	1971	1972	1973[1]
		Dollars	*Dollars*	*Dollars*
NONCITRUS:[2]				
Apples, commercial	Lb.	.0492	.0643	.0850
Apricots, 3 States	Ton	93.80	139.00	164.00
Avocados, 2 States[3]	Ton	689.00	498.00	n.a.
Bananas, Hawaii	Lb.	.116	.120	.107
Bushberries, 2 States	Lb.	.181	.288	.457
Cherries, sweet	Ton	316.00	385.00	362.00
Cherries, tart	Ton	139.00	165.00	375.00
Cranberries	Bbl.	[4] 14.90	[4] 13.20	n.a.
Dates, California	Ton	162.00	170.00	175.00
Figs, California	Ton	87.60	143.00	214.00
Grapes	Ton	95.50	165.00	159.00
Nectarines	Ton	155.00	177.00	254.00
Olives, California	Ton	148.00	415.00	358.00
Papayas, Hawaii	Lb.	.132	.133	.130
Peaches	Lb.	.0608	.0698	.0830
Pears	Ton	94.40	139.00	141.00
Persimmons	Ton	126.00	228.00	372.00
Plums, California	Ton	229.00	248.00	321.00
Pomegranates	Ton	128.00	121.00	168.00
Prunes, California	Ton	287.00	535.00	471.00
Prunes and Plums, other States	Ton	88.80	173.00	150.00
Strawberries	Lb.	.267	.271	.310
CITRUS:[5] [6]				
Oranges	Box	2.45	2.87	2.52
Tangerines	Box	3.51	4.53	4.02
Grapefruit	Box	2.40	2.89	2.74
Lemons	Box	5.00	4.81	4.60
Limes	Box	4.70	5.49	6.28
Tangelos	Box	2.09	2.81	2.35
Temples	Box	2.78	2.89	2.80
TREE NUTS:				
Almonds, California	Ton	650.00	785.00	1,500.00
Filberts, 2 States	Ton	414.00	508.00	630.00
Macadamia nuts, Hawaii	Lb.	.247	.233	.240
Pecans, all	Lb.	.330	.424	.386
Improved	Lb.	.354	.461	.435
Native and seedling	Lb.	.297	.389	.312
Walnuts, 2 States	Ton	419.00	564.00	580.00

[1] Preliminary. [2] Fresh fruit prices are equivalent returns at packinghouse door for Washington and Oregon, first delivery point for California, and at point of first sale in all other States. Processing fruit prices for all States are equivalent returns at processing plant door. [3] 1971 indicates 1971/72 crop. [4] Price per barrell is based on utilized cranberries. [5] Equivalent packinghouse door returns per box for all uses. [6] 1971 indicates 1970/71 crop.

n.a.—Data not available temporarily.

Table 6—Citrus fruits: Production and utilization, United States, crops of 1971/72 and 1972/73[1]

Crop and season	Production	Utilization	
		Fresh	Processed
	1,000 tons	*1,000 tons*	*1,000 tons*
Oranges:			
1971/72	8,237	1,727	6,510
1972/73	9,721	1,719	8,002
Tangerines:			
1971/72	221	149	72
1972/73	208	134	74
Grapefruit:			
1971/72	2,623	1,088	1,535
1972/73	2,663	1,103	1,560
Lemons:			
1971/72	634	365	269
1972/73	844	420	424
Limes:			
1971/72	44	19	25
1972/73	44	21	23
Tangelos:			
1971/72	176	86	90
1972/73	158	77	81
Temples:			
1971/72	239	81	158
1972/73	230	111	119
Total citrus fruits:			
1971/72	12,174	3,515	8,659
1972/73	13,868	3,585	10,283

[1] 1972/73 preliminary.

Source: October 1973 citrus production and utilization report, SRS, USDA.

Table 7—Citrus, processed, Florida crops of 1971/72 and 1972/73

Crop and season	Frozen concentrate	Chilled products		Other processed	Total processed
		Juice	Sections and salads		
	1,000 boxes[1]	*1,000 boxes*[1]	*1,000 boxes*[1]	*1,000 boxes*[1]	*1,000 boxes*[1]
Oranges:[2]					
1971/72	104,399	19,509	535	7,726	132,169
1972/73	132,210	20,465	654	8,949	162,278
Tangerines:					
1971/72	961	---	---	11	972
1972/73	961	---	---	21	982
Grapefruit:					
1971/72	8,725	3,206	994	17,036	29,961
1972/73	8,212	2,908	1,209	16,025	28,354

[1] Net weight per box: Oranges, 90 pounds; tangerines, 95 pounds; and grapefruit, 85 pounds. [2] Includes tangelos, Temples, and honey tangerines.

Source: October 1973 citrus production and utilization report, SRS, USDA.

Table 8—Apples, commercial crop[1]: Utilized production, 1971, 1972, and preliminary 1973

State and area	1971	1972	1973	State and area	1971	1972	1973
	Million pounds	*Million pounds*	*Million pounds*		*Million pounds*	*Million pounds*	*Million pounds*
Maine	92.0	75.0	55.0	Wisconsin	65.0	65.0	50.0
New Hampshire	65.0	55.0	44.0	Minnesota	23.5	26.0	20.0
Vermont	40.7	40.6	28.0	Iowa	10.6	13.3	10.4
Massachusetts	105.0	91.0	76.0	Missouri	56.2	60.0	51.0
Rhode Island	4.0	3.2	4.0	Kansas	15.0	12.0	15.0
Connecticut	45.2	30.0	30.0				
New York	925.0	770.0	720.0	N. Central	1,213.3	1,216.3	832.4
New Jersey	110.0	88.0	100.0				
Pennsylvania	505.0	400.0	410.0	Kentucky	19.4	14.1	9.9
				Tennessee	9.4	9.2	2.6
N. Atlantic	1,891.9	1,552.8	1,467.0	Arkansas	9.6	8.6	6.0
Delaware	12.0	11.0	12.0	S. Central	38.4	31.9	18.5
Maryland	69.0	66.0	66.0				
Virginia	480.0	420.0	400.0	Total Central	1,251.7	1,248.2	850.9
West Virginia	250.0	215.0	225.0				
North Carolina	185.0	245.0	210.0	Idaho	90.0	50.0	130.0
South Carolina	15.0	20.0	17.0	Colorado	74.0	11.0	100.0
				New Mexico	12.0	2.0	40.0
S. Atlantic	1,011.0	977.0	930.0	Utah	25.0	4.0	54.0
				Washington	1,200.0	1,390.0	1,800.0
Total Eastern	2,902.9	2,529.8	2,397.0	Oregon	125.0	105.0	175.0
				California	400.0	530.0	510.0
Ohio	150.0	135.0	100.0				
Indiana	90.0	75.0	63.0	Western	1,926.0	2,092.0	2,809.0
Illinois	103.0	100.0	83.0				
Michigan	700.0	730.0	440.0	United States	6,080.6	5,870.0	6,056.9

[1] In orchards of 100 or more bearing trees.

Table 9—Apples, commercial crop[1]: Production by varieties, United States, 1971, 1972, and indicated 1973

Variety	1971	1972	1973	Variety	1971	1972	1973
	Million pounds	*Million pounds*	*Million pounds*		*Million pounds*	*Million pounds*	*Million pounds*
Summer:				Winter, cont'd.:			
Gravenstein	83.6	107.2	87.5	Golden Delicious	801.7	922.2	939.6
Other summer	100.4	([2])	([2])	McIntosh	769.8	656.7	481.0
Total	184.0	([2])	([2])	Northern Spy	122.2	115.0	78.4
				R.I. Greening	170.5	121.9	68.0
Fall:				Rome Beauty	539.2	459.8	496.8
Grimes Golden	31.6	([2])	([2])	Stayman	287.4	222.2	222.2
Jonathan	402.6	362.5	363.7	Winesap	166.1	162.3	163.7
Wealthy	38.2	([2])	([2])	Yellow Newton	146.3	153.4	169.5
Other fall	76.5	([2])	([2])	York Imperial	360.4	273.9	315.7
Total	548.9	([2])	([2])	Other winter	241.3	([2])	([2])
				Total	5,638.2	4,942.8	5,180.4
Winter:							
Baldwin	48.9	([2])	([2])	Other	---	468.8	431.4
Ben Davis and Gano	15.2	([2])	([2])				
Cortland	180.2	125.9	123.8	Total all varieties	6,371.1	5,881.3	6,063.0
Delicious	1,789.0	1,729.5	2,121.7				

[1] Commercial crops refer to the total production of apples in orchards of 100 or more bearing trees. Data include small quantities of mature fruit not harvested and excess cullage of harvested fruit not included in data in table 8. [2] Data not available for this variety individually but are included in "Other" category.

Table 10—Pears: Utilized production by States and Pacific Coast variety composition, 1971, 1972, and indicated 1973

State	1971	1972	1973	Pacific Coast	1971	1972	1973
	Tons	*Tons*	*Tons*		*Tons*	*Tons*	*Tons*
Connecticut	1,630	2,000	1,500	Washington:			
				Bartlett	112,000	99,000	122,000
New York	18,000	18,500	12,600	Other	53,400	54,000	61,900
Pennsylvania	3,400	2,950	1,800	Total	165,400	153,000	183,900
Michigan	18,500	22,500	9,500	Oregon:			
				Bartlett	83,000	51,000	71,000
Idaho	2,300	800	1,300	Other	96,000	59,000	96,000
Colorado	5,490	2,780	5,510	Total	179,000	110,000	167,000
Utah	4,200	200	5,830	California:			
				Bartlett	301,000	286,000	317,000
Washington	165,400	153,000	183,900	Other	8,000	9,600	10,300
Oregon	179,000	110,000	167,000	Total	309,000	295,600	327,300
California	309,000	295,600	327,300	3 States:			
				Bartlett	496,000	436,000	510,000
				Other	157,400	122,600	168,200
United States ...	706,920	608,330	716,240	Total	653,400	558,600	678,200

Table 11.—Canned fruit juice: Pack and stocks, 1972/73 and earlier seasons

Commodity	Pack			Stocks					
				Canners[1]			Distributors November 1		
	1970/71	1971/72	1972/73	Jan. 1, 1972	Dec. 30, 1972	Dec. 29, 1973	1971	1972	1973
	1,000 24/2 cases	*1,000 24/2 cases*	*1,000 24/2 cases*	*1,000 24/2 cases*	*1,000 24/2 cases*	*1,000 24/2 cases*	*1,000 actual cases*	*1,000 actual cases*	*1,000 actual cases*
Canned juices:									
Apple	14,118	13,696	13,832	[2]4,690	[2]5,988	[2]4,387	n.a.	n.a.	n.a.
Blended orange and grapefruit	2,500	1,984	[3]1,898	421	492	532	257	230	235
Grapefruit[4]	25,993	26,777	[3]19,059	3,158	3,726	2,837	1,232	1,316	1,437
Orange	15,452	13,853	[3]13,670	2,034	2,330	3,174	796	837	878
Tangerine	35	16	24	23	7	17	n.a.	n.a.	n.a.
Pineapple	13,704	13,641	12,328	[2]9,814	[2]8,335	[2]6,245	712	829	781
Pineapple concentrate, s.s. basis	12,011	10,268	7,812	[2]7,769	[2]8,433	[2]7,521	n.a.	n.a.	n.a.

[1] Canners' stocks of citrus juices are Florida only. [2] December 1 stocks. [3] Florida only. [4] Excludes reconstituted juice.

n.a.—Data not reported.

Canners' Stock and pack from National Canners Association, Florida Canners Association, and Pineapple Growers Association of Hawaii. Distributors' stocks from Bureau of the Census.

Table 12.—Canned noncitrus fruit: Canners' stocks, packs, supplies, and shipments, current season, with comparisons

Item and season[1]	Carryin	Pack	Total supply	Shipments to January 1	January 1 stocks	Total season shipments	Carryout
	1,000 equivalent cases 24 No. 2½'s						
Total—13 items:							
1969/70	25,323	113,041	138,364	60,451	68,919	104,028	34,336
1970/71	32,013	92,719	124,732	52,017	64,859	95,034	29,698
1971/72	29,698	92,133	121,831	51,281	61,242	94,433	27,398
1972/73	27,398	82,180	109,578	53,503	49,043	93,543	16,035
1973/74	16,035			55,810	38,963		
Apples:							
1969/70	1,238	2,877	4,115	1,005	2,415	2,698	1,417
1970/71	1,417	2,090	3,507	1,032	2,161	2,476	1,031
1971/72	1,031	2,358	3,389	1,110	1,582	2,672	717
1972/73	717	2,161	2,878	1,091	982	2,588	290
1973/74	290			1,042	829		
Applesauce:							
1969/70	2,693	16,758	19,451	5,272	11,193	15,281	4,170
1970/71	4,170	14,131	18,301	5,541	10,705	15,211	3,090
1971/72	3,090	15,148	18,238	5,548	9,402	14,911	3,327
1972/73	3,327	11,942	15,269	4,963	8,166	13,954	1,315
1973/74	1,315			5,536	6,613		
Apricots:[2]							
1969/70	1,037	5,543	6,580	2,783	3,797	4,175	2,405
1970/71	[3]2,067	3,766	5,833	2,569	3,264	4,137	1,696
1971/72	1,696	3,262	4,958	3,071	1,887	4,397	561
1972/73	561	3,041	3,602	2,194	1,408	3,304	298
1973/74	298	4,094	4,392	2,618	1,774		
Cherries, RSP:							
1969/70	100	1,505	1,605	920	665	1,453	152
1970/71	152	978	1,130	558	572	1,028	102
1971/72	102	1,041	1,143	480	663	900	243
1972/73	243	1,299	1,542	1,171	371	1,533	9
1973/74	9	579	588	505	83		
Cherries, sweet:							
1969/70	112	947	1,059	472	587	707	352
1970/71	[3]330	663	993	372	621	608	385
1971/72	385	536	921	373	548	606	315
1972/73	315	393	708	335	373	518	190
1973/74	190	503	693	351	342		
Fruit cocktail:[2]							
1969/70	3,316	16,686	20,002	9,171	10,831	15,935	4,067
1970/71	[3]3,426	13,081	16,507	7,345	9,162	13,054	3,453
1971/72	3,453	13,334	16,787	6,994	9,793	12,451	4,336
1972/73	4,336	11,855	16,191	7,620	8,571	13,856	2,335
1973/74	2,335	13,384	15,719	9,108	6,611		

See footnotes at end of table.

—Continued

Table 12.—Canned noncitrus fruit: Canners' stocks, packs, supplies, and shipments, current season, with comparisons—Continued

Item and season[1]	Carryin	Pack	Total supply	Shipments to January 1	January 1 stocks	Total season shipments	Carryout
	1,000 equivalent cases 24 No. 2½'s						
Fruits for salad:[2]							
1969/70	230	788	1,018	375	643	678	340
1970/71	[3]299	658	957	439	518	737	220
1971/72	220	784	1,004	392	612	779	225
1972/73	225	724	949	396	553	737	212
1973/74	212	799	1,011	483	528		
Mixed fruits:[2]							
1969/70	162	728	890	471	419	628	262
1970/71	262	548	810	532	278	652	158
1971/72	158	695	853	583	270	739	114
1972/73	114	752	866	581	285	767	99
1973/74	99	736	835	599	236		
Peaches, Calif. clings:							
1969/70	5,637	31,479	37,116	19,810	17,306	28,788	8,328
1970/71	[3]7,375	24,878	32,253	14,855	17,398	25,490	6,763
1971/72	6,763	21,839	28,602	13,623	14,979	24,712	3,890
1972/73	3,890	21,233	25,123	15,505	9,618	23,532	1,591
1973/74	1,591	21,615	23,206	15,314	7,892		
Peaches, U.S. freestone:							
1969/70	1,899	6,060	7,959	3,965	3,994	5,940	2,019
1970/71	[3]1,797	4,663	6,460	3,434	3,026	5,266	1,194
1971/72	1,194	3,923	5,117	2,460	2,657	4,174	943
1972/73	943	2,783	3,726	2,438	1,288	3,530	196
1973/74	196	2,899	3,095	1,938	1,157		
Pears:							
1969/70	2,784	10,590	13,374	5,456	7,918	10,384	2,990
1970/71	2,990	8,610	11,600	4,427	7,173	8,231	3,369
1971/72	3,369	10,309	13,678	5,670	8,008	9,990	3,688
1972/73	3,688	9,063	12,751	5,535	7,216	10,320	2,431
1973/74	2,431	9,813	12,244	6,608	5,636		
Pineapple:							
1969/70	5,864	16,871	22,735	9,776	7,666	15,818	6,917
1970/71	[3]6,811	17,813	24,624	10,035	9,102	16,837	7,787
1971/72	7,787	17,705	25,492	10,135	10,034	16,829	8,663
1972/73	8,663	16,540	25,203	11,205	9,911	18,191	7,012
1973/74	7,012			11,044	6,608		
Purple plums, U.S.:							
1969/70	251	2,209	2,460	975	1,485	1,543	917
1970/71	917	840	1,757	878	879	1,307	450
1971/72	450	1,199	1,649	842	807	1,273	376
1972/73	376	394	770	469	301	713	57
1973/74	57	1,261	1,318	664	654		

[1] Season beginning September 1 for apples and applesauce, July 1 for RSP cherries, and June 1 for all other items. [2] California only. [3] 1970/71 canners' carryin excludes cyclamate packs.

Source: Prepared from reports of National Canners Association, Canners League of California, and Pineapple Growers Association of Hawaii.

Table 13.—Frozen concentrated orange and grapefruit juice: Florida stocks, packs, supplies and shipments, current season with comparisons

Item and season	Carry in	Pack	Imports	Total supply	Shipments to January 1	January 1 stocks	Total season shipments	Carry-out
	Million gallons	*Million gallons*	*Million gallons*	*Million gallons*	*Million gallons*	*Million gallons*	*Million gallons*	*Million gallons*
Orange:[1]								
1969/70	17.4	124.9	1.5	143.8	7.3	23.5	117.2	26.6
1970/71	26.6	125.2	8.5	160.3	9.9	32.5	137.7	22.6
1971/72	22.6	134.2	11.7	168.5	11.3	24.5	140.5	28.0
1972/73	28.0	176.1	4.1	208.2	10.7	31.2	159.8	48.4
1973/74	48.4	n.a.	n.a.	n.a.	11.4	55.2		
Grapefruit:								
1969/70	1.4	4.3	---	5.7	.4	1.5	5.2	.5
1970/71	.5	6.9	---	7.4	.4	1.4	6.3	1.1
1971/72	1.1	8.8	---	9.9	.6	1.7	7.1	2.8
1972/73	2.8	8.7	---	11.5	.4	3.6	7.9	3.6
1973/74	3.6	n.a.	---	n.a.	.4	4.3		

[1] 45° Brix in gallons including concentrated orange juice for manufacture.

Source: Prepared from reports of Florida Canners Association.

Table 14.—Selected fresh citrus fruit prices, f.o.b. packed fresh, by months, 1970-74

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Dollars per box	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*	*Dollars per box*
ORANGES												
Florida:												
1970	4.00	4.55	4.13	3.75	3.90	4.10	---	---	---	4.10	3.75	3.80
1971	3.90	4.85	4.65	4.60	5.05	5.60	---	---	---	8.10	5.40	5.30
1972	4.85	5.10	4.85	4.60	4.80	5.30	6.30	---	---	6.50	4.40	4.30
1973	4.65	4.70	5.00	4.75	4.55	4.90	5.00	---	---	---	---	5.30
1974	5.10											
Texas:												
1970	3.60	3.90	3.70	3.40	3.45	3.50	---	---	4.70	3.90	3.40	3.40
1971	3.35	3.50	3.70	3.65	3.80	4.20	---	---	---	4.85	3.85	4.10
1972	4.20	4.40	4.60	4.20	---	---	---	---	---	5.10	4.20	4.30
1973	4.00	3.70	4.10	4.40	4.00	---	---	---	---	5.30	4.80	4.40
1974	3.94											
Arizona:												
1970	5.05	5.10	4.79	4.80	5.10	5.30	5.00	---	---	---	9.10	6.50
1971	5.70	5.50	6.80	5.90	5.00	5.80	6.20	---	---	---	9.60	7.60
1972	6.20	4.65	4.90	4.90	4.80	5.00	5.20	---	---	---	6.40	6.20
1973	7.50	7.29	6.56	7.00	7.25	5.90	6.25	---	---	---	---	6.70
1974	7.40											
California:												
1970	5.74	5.71	5.51	5.41	5.22	5.59	5.60	5.66	6.52	7.94	7.30	6.40
1971	6.60	6.70	6.60	6.54	6.62	6.10	5.90	6.10	6.20	6.50	7.02	6.76
1972	6.20	6.10	5.94	5.89	5.71	5.62	6.04	6.18	6.34	5.70	4.42	4.84
1973	7.00	7.20	7.30	7.84	7.05	6.40	6.30	---	6.75	8.20	6.65	7.45
1974	7.45											
GRAPEFRUIT												
Florida:												
1970	4.50	4.51	4.61	4.84	5.68	---	---	---	---	4.97	4.09	4.03
1971	4.18	4.73	5.05	5.45	6.45	---	---	---	---	6.07	5.35	5.41
1972	5.23	5.35	5.07	5.38	6.03	6.21	---	---	---	7.56	5.27	5.52
1973	5.25	5.29	5.37	5.36	5.88	6.17	---	---	---	6.05	5.60	5.49
1974	5.53											
Texas:												
1970	4.15	4.00	3.95	4.20	4.65	4.70	---	---	---	4.70	3.80	3.50
1971	3.55	3.80	4.05	4.40	5.20	5.00	---	---	---	7.10	4.70	4.60
1972	4.50	4.40	4.80	4.70	---	---	---	---	---	8.68	6.20	5.60
1973	5.20	4.90	5.00	4.50	4.45	---	---	---	---	---	6.40	5.70
1974	4.80											
LEMONS												
Arizona:												
1970	8.70	8.90	---	---	---	---	---	---	10.90	10.80	9.20	8.40
1971	8.40	6.70	---	---	---	---	---	---	---	10.50	9.80	8.60
1972	8.60	8.50	---	---	---	---	---	---	---	9.80	9.40	9.50
1973	9.50	10.10	---	---	---	---	---	---	---	14.70	12.60	11.70
1974	11.25											
California:												
1970	9.02	9.10	7.92	7.88	7.92	7.90	8.32	9.24	9.76	8.72	9.00	9.10
1971	9.80	9.70	9.80	10.30	10.00	9.90	9.40	8.75	9.21	9.01	9.34	9.33
1972	9.65	9.88	9.98	9.97	10.07	9.72	10.24	10.10	10.30	10.70	9.70	10.80
1973	11.10	10.80	9.80	9.20	8.80	9.50	9.10	11.50	17.00	13.90	12.90	11.50
1974	12.20											

Source: Statistical Reporting Service

Table 15.—Fruit, fresh: Average retail prices, selected cities, United States, by months, 1969-74

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
Apples (pound):												
1969	23.0	23.6	24.3	24.7	25.3	27.3	28.4	28.1	25.7	19.4	18.5	19.0
1970	19.6	19.8	20.4	20.7	21.9	24.3	26.0	26.6	25.1	19.6	19.2	19.9
1971	21.0	21.7	22.5	23.5	24.1	25.4	27.9	28.5	25.7	20.9	20.2	21.0
1972	21.6	22.3	22.7	23.1	24.7	26.6	28.4	29.3	27.4	22.9	22.9	23.8
1973	24.6	25.5	26.2	27.9	30.3	34.4	37.0	35.0	32.2	28.6	29.6	30.8
1974	31.4											
Bananas (pound):												
1969	15.5	15.8	15.3	15.3	16.1	15.8	16.3	16.3	16.6	16.8	15.7	15.6
1970	15.7	16.1	17.0	16.9	16.9	17.0	15.4	15.7	15.4	16.3	14.7	13.6
1971	13.9	14.9	15.0	15.0	14.7	14.4	15.1	15.5	15.3	15.8	14.6	14.3
1972	14.4	15.6	15.3	17.0	16.2	16.9	16.3	15.6	15.9	15.7	15.5	15.1
1973	15.1	15.7	15.1	16.6	15.6	17.1	17.6	18.3	17.2	17.3	16.7	15.6
1974	16.6											
Oranges (dozen):												
1969	83.0	82.7	82.9	82.5	82.4	81.9	83.5	86.6	86.2	86.1	86.4	81.6
1970	78.7	80.6	81.2	79.2	80.1	83.6	87.8	90.5	91.9	99.0	94.5	89.7
1971	83.9	86.8	87.7	87.5	91.2	93.8	96.5	101.5	103.7	102.9	99.8	96.3
1972	92.9	91.7	91.2	88.2	88.7	92.7	95.4	101.3	100.6	100.9	97.0	90.0
1973	97.1	97.0	99.8	101.7	103.2	101.5	101.5	110.6	110.6	118.2	116.4	106.2
1974	104.9											
Grapefruit (each):												
1969	14.0	13.9	13.2	13.2	13.5	14.1	15.3	19.1	20.2	18.0	14.4	13.9
1970	14.1	14.9	14.7	14.9	15.7	18.6	21.1	20.9	20.4	18.6	14.6	13.9
1971	13.8	14.3	14.6	15.9	16.6	20.2	22.7	23.8	23.2	20.8	17.1	16.3
1972	16.3	16.3	16.7	16.4	17.7	19.5	20.5	24.2	24.6	25.2	18.4	17.5
1973	17.2	17.5	17.5	17.3	17.8	19.5	21.8	25.0	24.3	25.3	18.9	18.1
1974	18.6											
Lemons (pound):												
1969	27.0	28.3	28.2	28.3	28.1	28.5	28.6	29.5	29.5	30.8	31.3	31.8
1970	31.6	31.1	31.5	31.0	30.9	30.3	29.9	30.6	31.2	32.1	32.5	31.9
1971	31.9	32.4	32.5	32.8	32.9	32.9	33.2	32.8	32.7	33.1	33.4	33.8
1972	34.1	34.5	34.6	34.6	34.6	34.4	33.7	34.6	35.1	35.6	35.1	35.1
1973	34.8	35.8	36.4	36.6	36.5	35.8	36.2	37.7	42.9	43.3	42.2	42.1
1974												
Grapes (pound):												
1969	---	---	---	---	---	---	47.7	37.0	34.9	36.2	38.8	---
1970	---	---	---	---	---	---	---	46.0	38.2	42.2	44.0	---
1971	---	---	---	---	---	---	---	59.1	41.9	41.6	48.1	---
1972	---	---	---	---	---	---	---	52.1	51.1	58.8	57.6	---
1973	---	---	---	---	---	---	---	54.6	48.6	55.1	59.0	---
1974	---											
Strawberries (pint):												
1969	---	---	---	47.1	38.5	40.2	---	---	---	---	---	---
1970	---	---	---	---	39.9	41.5	---	---	---	---	---	---
1971	---	---	---	---	44.3	41.9	---	---	---	---	---	---
1972	---	---	---	---	41.8	46.5	---	---	---	---	---	---
1973	---	---	---	---	48.2	51.1	---	---	---	---	---	---
1974	---											

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 16.—Selected wholesale canned fruit and fruit juice prices, by months, 1970-74

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Dollars per dozen	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*	*Dollars per dozen*
CANNED FRUIT:												
Applesauce												
(No. 303 can):												
1970	1,696	1,688	1,678	1,672	1,672	1,672	1,651	1,643	1,660	1,660	1,660	1,668
1971	1,668	1,688	1,660	1,680	1,688	1,712	1,712	1,757	1,729	1,729	1,729	1,847
1972	1,843	1,827	1,835	1,835	1,855	1,855	1,855	1,855	1,855	1,868	1,932	1,939
1973	1,974	2,006	2,006	2,006	2,047	2,047	2,018	2,047	2,059	2,607	2,607	2,681
1974	2,687											
Fruit cocktail												
(No. 2½ can):												
1970	3,549	3,500	3,451	3,468	3,498	3,553	3,680	3,827	4,021	4,021	4,021	4,086
1971	4,086	4,086	4,086	4,086	4,056	4,164	4,110	4,110	4,126	4,126	4,126	4,165
1972	4,136	4,200	4,274	4,253	4,253	4,253	4,253	4,268	4,292	4,323	4,397	4,433
1973	4,477	4,477	4,477	4,477	4,501	4,501	4,501	4,571	4,685	4,720	4,720	4,727
1974	4,806											
Peaches:												
(No. 2½ can):												
1970	2,923	2,923	2,987	3,018	3,067	3,067	3,067	3,067	3,135	3,135	3,199	3,199
1971	3,199	3,199	3,170	3,170	3,165	3,243	3,272	3,243	3,243	3,243	3,243	3,272
1972	3,243	3,258	3,361	3,355	3,355	3,384	3,374	3,428	3,389	3,405	3,457	3,486
1973	3,511	3,511	3,513	3,513	3,585	3,585	3,585	3,720	3,767	3,872	3,872	3,921
1974	4,069											
Pears:												
(No. 2½ can):												
1970	3,848	3,883	3,883	3,960	4,022	4,120	4,146	4,251	4,380	4,449	4,362	4,414
1971	4,501	4,501	4,501	4,501	4,476	4,555	4,555	4,542	4,308	4,308	4,308	4,308
1972	4,308	4,240	4,280	4,382	4,423	4,545	4,545	4,582	4,582	4,698	4,698	4,698
1973	4,726	4,728	4,769	4,891	4,891	4,862	4,891	4,905	4,904	4,904	4,904	5,017
1974	5,078											
CANNED JUICE:												
Apple												
(32-oz. bottle):												
1970	2,482	2,842	2,813	2,862	2,862	2,862	2,862	2,862	2,862	2,845	2,845	2,845
1971	2,845	2,845	2,845	2,894	2,894	2,956	2,956	2,956	2,956	2,952	2,952	3,014
1972	3,014	3,014	3,038	3,038	3,085	3,085	3,085	3,085	3,085	3,195	3,232	3,317
1973	3,413	3,511	3,511	3,560	3,560	3,633	3,560	3,633	3,799	4,479	4,479	5,070
1974	5,070											
Orange:												
(No. 3 can):												
1970	3,349	3,554	3,368	3,368	3,466	3,486	3,398	3,417	3,417	3,417	3,417	3,124
1971	3,124	3,515	3,613	3,868	3,868	4,083	4,093	4,093	4,093	4,093	4,093	4,250
1972	4,250	4,250	4,289	4,171	4,162	4,162	4,162	4,162	4,162	4,113	4,113	4,142
1973	4,020	3,873	3,946	4,137	4,162	4,101	4,101	4,101	4,101	4,162	4,162	4,162
1974	4,162											
Grapefruit												
(No. 3 can):												
1970	4,000	4,024	4,245	4,318	4,367	4,424	4,603	4,619	4,619	4,619	4,570	4,023
1971	3,893	3,974	3,999	4,342	4,374	4,611	4,684	4,758	4,758	4,758	4,758	4,782
1972	4,782	4,652	4,391	4,391	4,329	4,329	4,486	4,486	4,525	4,525	4,525	4,588
1973	4,588	4,588	4,588	4,133	3,996	3,947	3,898	3,898	3,898	4,045	4,290	4,290
1974	4,343											

Source: Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Commas in this table should be read as periods.

Table 17.—Fruit, processed: Average retail prices, selected cities, United States, by months, 1969-74

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
CANNED FRUIT												
Peaches (No. 2½ can):												
1969	34.9	34.6	34.4	34.2	34.2	34.7	34.6	34.9	34.4	34.2	33.6	33.9
1970	34.1	34.2	34.1	34.2	34.9	35.1	35.6	35.8	35.8	36.0	36.3	35.9
1971	36.2	36.4	36.4	36.8	36.9	36.4	36.9	37.0	37.1	37.0	36.9	36.9
1972	36.8	37.2	37.5	37.6	37.3	37.2	37.7	37.6	37.7	37.7	37.9	38.0
1973	38.1	38.9	39.1	39.4	39.7	40.5	40.6	41.3	42.5	43.4	44.2	44.8
1974												
Fruit cocktail (No. 303 can):												
1969	28.0	28.0	27.9	27.9	27.7	27.8	28.0	27.8	27.9	27.6	27.6	27.8
1970	27.5	27.4	27.5	27.8	27.8	27.8	28.2	28.3	28.6	29.2	29.4	29.6
1971	29.9	29.9	30.1	30.5	30.6	30.6	31.0	31.0	31.3	31.2	31.2	31.3
1972	31.5	31.4	31.5	31.7	31.6	31.5	31.5	31.4	31.5	31.6	32.0	32.0
1973	32.4	32.8	33.1	33.5	33.4	33.6	33.6	33.6	33.8	34.4	35.3	35.7
1974	36.0											
Pears (No. 2½ can):												
1969	51.3	50.9	50.9	50.6	50.4	50.4	50.2	50.3	50.1	49.8	49.4	49.2
1970	48.7	48.5	48.2	48.2	48.6	48.7	49.4	49.7	50.2	50.7	51.3	51.8
1971	52.2	52.6	52.6	52.9	52.9	53.0	53.0	53.2	53.3	53.2	52.9	52.8
1972	52.8	53.0	52.9	53.0	53.0	53.2	53.2	53.4	53.9	54.2	54.5	54.5
1973	54.8	55.0	55.5	55.8	56.1	56.6	56.6	56.9	56.7	57.5	58.5	58.9
1974	59.3											
CHILLED JUICE												
Orange (quart):												
1969	43.0	43.3	44.4	45.1	44.9	45.2	45.0	45.2	45.3	45.3	45.2	45.0
1970	44.5	44.6	44.6	44.3	44.3	44.0	44.3	44.6	44.2	44.5	44.3	43.9
1971	43.6	42.8	42.8	43.7	44.6	45.2	46.2	46.7	47.1	47.0	47.3	47.5
1972	47.4	47.4	47.4	47.6	47.4	47.4	47.4	47.8	47.2	47.3	47.4	47.6
1973	47.9	48.0	47.8	47.8	47.9	48.2	48.1	48.1	48.4	48.0	48.4	48.6
1974	48.6											
FROZEN												
Conc. orange juice (6-oz. can):												
1969	22.6	23.1	24.3	24.9	25.3	24.6	24.5	24.4	24.2	23.9	23.7	23.7
1970	23.5	23.5	22.8	22.5	22.5	22.5	22.3	22.4	22.3	21.9	21.8	21.6
1971	21.5	21.6	21.6	22.1	22.3	23.2	23.9	24.5	25.0	25.0	24.9	24.9
1972	24.9	25.0	25.1	25.1	25.0	24.9	25.0	24.9	25.0	24.8	25.0	25.0
1973	25.0	25.1	25.1	25.4	25.1	24.8	24.9	24.9	25.0	25.0	25.3	25.5
1974	25.5											
Conc. lemonade (6-oz. can):												
1969	12.4	12.5	12.5	12.6	12.7	12.6	12.4	12.7	12.8	12.8	12.9	13.0
1970	13.1	13.1	13.2	13.3	13.4	13.2	13.0	13.1	13.0	13.3	13.4	13.6
1971	13.6	13.7	13.7	13.8	13.8	13.9	13.9	14.0	14.1	14.2	14.1	14.3
1972	14.3	14.4	14.4	14.4	14.3	14.3	14.1	14.1	14.3	14.4	14.6	14.6
1973	14.6	14.6	14.7	14.8	14.8	14.6	14.6	14.6	14.7	14.8	15.0	15.1
1974	15.1											

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 18.– Fresh fruit: Retail price, marketing margin, and grower and packer return per pound, sold in New York City, indicated months, 1972 and 1973

Commodity & season	Retail price (cents)	Marketing margin		Grower and packer return[1] (f.o.b. shipping point price)[2]	
		Cents	Percentage of retail price	Cents	Percentage of retail price
Apples, Eastern Delicious					
November 1973	29.2	14.3	49	14.9	51
October 1973	30.8	14.4	47	16.4	53
November 1972	22.9	8.6	38	14.3	62
Apples, Eastern McIntosh					
November 1973	34.0	15.9	47	18.1	53
October 1973	([3])	([3])	([3])	([3])	([3])
November 1972	26.9	16.4	61	10.5	39
Apples, Western Delicious					
November 1973	39.3	24.4	62	14.9	38
October 1973	42.0	24.6	59	17.4	41
November 1972	36.8	21.0	57	15.8	43
Lemons, Western					
November 1973	38.8	23.9	62	14.9	38
October 1973	41.8	22.5	54	19.3	46
November 1972	35.8	23.6	66	12.2	34
Oranges, California Valencia					
November 1973	26.6	17.2	65	9.4	35
October 1973	26.4	15.5	59	10.9	41
November 1972	25.3	17.5	69	7.8	31
Oranges, Florida					
November 1973	20.0	13.2	66	6.8	34
October 1973	([3])	([3])	([3])	([3])	([3])
November 1972	16.9	11.5	68	5.4	32

[1] For quantity of product equivalent to retail unit sold to consumers: Because of waste and spoilage during marketing, equivalent quantity exceeds retail unit. [2] Production areas: Apples, Eastern Delicious-*New York State*; Apples, Eastern McIntosh-*New York State*; Apples Western Delicious-*Washington*; Lemons-California. [3] Not prices in October.

PRICES, COSTS AND MARGINS OF FLORIDA ORANGES—FRESH AND PROCESSED

by

Alfred J. Burns and Joseph C. Podany

ABSTRACT: Of retail sales in Chicago and New York City, Florida orange growers in 1965/66-1972/73 received a greater return from fresh oranges than from oranges processed into frozen concentrated orange juice. However, the grower's share of the retail value was larger for frozen concentrated orange juice than from an equivalent quantity of fresh oranges. Florida growers have maintained their share of the consumer dollar for frozen concentrated orange juice during the past 8 years. However, their share for fresh oranges has declined slightly.

Key Words: Oranges, fresh, frozen concentrate, retail price, costs, margins, grower returns.

INTRODUCTION

With the introduction of frozen concentrated orange juice in the mid-1940's, per capita consumption began to shift from fresh oranges to frozen concentrate. Declining per capita consumption of fresh oranges apparently leveled off during the past decade while use of frozen concentrate continued to increase. The average person consumed about 15 pounds of fresh oranges and almost 20 pounds of frozen concentrated orange juice (single strength equivalent) in 1972.

Florida's orange production increased sharply during the past decade. An increasingly larger share of the crop was processed, mostly into frozen concentrated orange juice. In 1972/73 Florida produced 169.7 million boxes of oranges, 79 percent of the U.S. crop. That season 93 percent of Florida's crop was processed and 7 percent moved fresh.

This article discusses and compares prices, costs, margins, and grower returns for Florida oranges and frozen concentrated orange juice sold in Chicago and New York City. Data used are from a continuing costs and margins project on fruits and vegetables.

FRESH ORANGES

Procedures

Florida fresh oranges were priced at two levels—f.o.b. shipping point and retail. Retail prices were collected monthly by the Bureau of Labor Statistics in a sample of retail stores on Tuesday, Wednesday, and Thursday of the first week of the month containing a Tuesday. The f.o.b. shipping point price used is an average of daily prices for the week preceding the retail pricing week. Weekly average shipping point prices are reported by the Grower's Administrative Committee, based on prices compiled by Florida Citrus Mutual. Monthly retail and shipping point prices are weighted by monthly carlot unloads of Florida oranges in Chicago and New York City to obtain season average price (Season: Nov.-May).

The retail value of a box of fresh oranges is the return to the retailer for salable oranges (retail price minus 3 percent allowance for losses during the marketing process). Transportation costs are based on rail rates from Lakeland, Fla. to Chicago and New York City. Picking, hauling, packing and selling costs are reported by the Florida Agricultural Experiment Station. Grower returns (on-tree) are derived from shipping point price by deducting picking, hauling, packing and selling costs. The wholesale and retail margin is derived by deducting the shipping point price plus transportation costs from the retail value. This margin represents payment for wholesaling (assembly and warehousing), intra-city transportation, and retailing.

Marketing Cost Up—Grower Returns Down

The Bureau of Labor Statistics estimated the average retail price of Florida oranges in Chicago and New York City to be 16.0 cents per pound in 1972/73 or 0.1 cent per pound higher than in 1963/64 (table 1). The supply of Florida oranges sold fresh was 5 percent smaller in 1972/73 than in 1963/64 (Fig. 1). In the intervening seasons, fresh supplies were considerably larger and retail prices were lower, particularly during 1964/65-1967/68 seasons. Retail price in 1966/67 was one-third lower and supplies were 39 percent larger than in 1963/64.

Retail price changes were responsive to changes in fresh orange supplies in 6 of 8 season (Fig. 1). Reduced supplies resulted in higher prices in 3 seasons, and increased supplies resulted in lower prices in 3 seasons. Both supply and price in 1969/70 remained essentially unchanged from a year earlier. Increased supplies in 1970/71 and 1972/73 did not result in lower prices.

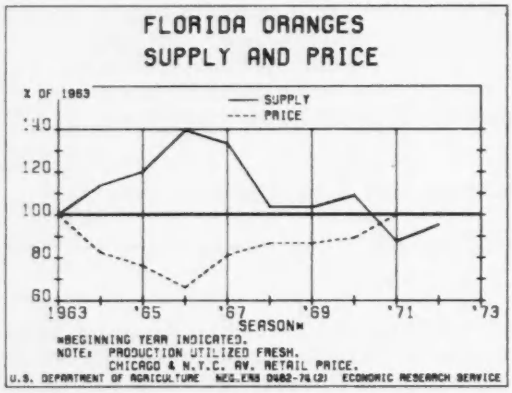


Figure 1

The retail value of a box of Florida oranges sold in Chicago and New York City averaged $13.94 in 1972/73, 8 cents higher than in 1963/64 (Fig. 2, table 1). The wholesale and retail margin, transportation costs, and picking, hauling, packing, and selling costs all increased by a larger amount during the period. Consequently, Florida grower returns trended downward. Grower returns averaged $1.97 per box in 1972/73—less than half of the very high returns received in 1963/64. Growers received less than $2 per box in 5 of the last 8 seasons. In 1966/67, they received only 88 cents per box, which represented only 10 percent of the retail value in Chicago and New York City. In 7 of the last 8 seasons the grower's share was less than 20 percent of the retail value.

A simple trend line fitted to the data in table 1 indicates that the retail value of Florida oranges sold in Chicago and New York City increased an average of 22 cents per box per year since 1963/64. During the same period, the wholesale and retail margin increased 17 cents per box per year; rail transportation costs went up 8 cents; picking, hauling, packing, and selling costs rose 9 cents; and grower returns declined 12 cents.

The market shares of the retail value going for the wholesale and retail margin, transportation costs, and picking, hauling, packing and selling costs each increased on the average slightly over one-third of a percentage point per year during the 10 years. The grower share declined slightly over 1 percentage point per year. For the 10 years the wholesale and retail margin averaged 52 percent of the retail value,

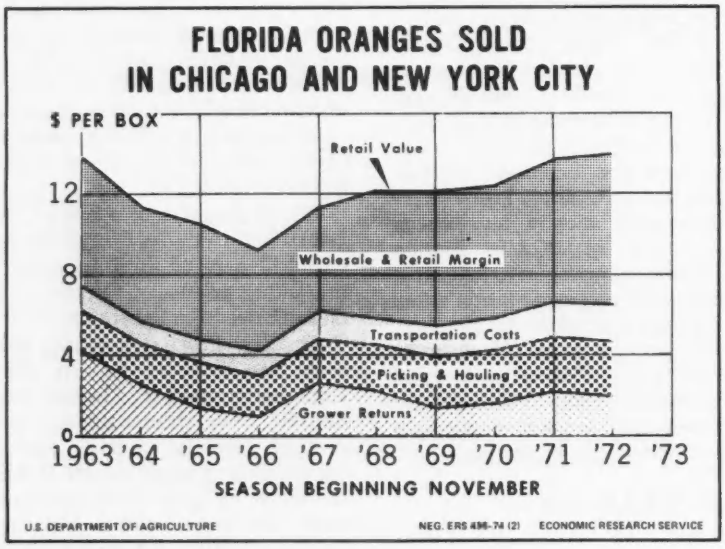


Figure 2

Table 1.—Florida Oranges: Seasonal average prices, margins, costs and returns, average Chicago and New York City[1]

Season	Retail price per pound	Retail value per box[2]	Wholesale and retail margin		Transportation costs[3]		Picking, hauling, packing and selling costs[4]		Derived grower returns[5]	
			Per box	Percentage of retail value	Per box	Percentage of retail value	Per box	Percentage of retail value	Per box	Percentage of retail value
	Cents	*Dollars*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*
1963/64	15.9	13.86	6.48	47	1.18	9	1.99	14	4.21	30
1964/65	13.1	11.39	5.74	50	1.18	10	1.99	18	2.48	22
1965/66	12.1	10.51	5.74	55	1.18	11	2.07	20	1.52	14
1966/67	10.5	9.19	4.94	54	1.32	14	2.05	22	.88	10
1967/68	12.9	11.31	5.20	46	1.32	12	2.24	20	2.55	22
1968/69	13.8	12.07	6.22	52	1.39	11	2.34	19	2.12	18
1969/70	13.8	12.07	6.62	55	1.53	12	2.50	21	1.42	12
1970/71	14.2	12.39	6.52	52	1.73	14	2.56	21	1.58	13
1971/72	15.9	13.86	7.13	52	1.83	13	2.66	19	2.24	16
1972/73[6]	16.0	13.94	7.43	53	1.80	13	2.74	20	1.97	14

[1] 7-month weighted average (Nov.-May) for all sizes and varieties of oranges, not including Temples. 90 pounds net weight per box. [2] Returns to retailer for salable oranges (3-percent allowance for loss incurred during marketing process). [3] Rail charges from Lakeland, Florida. [4] Spurlock, A.H., Costs of Picking and Hauling Florida Citrus Fruits, 1971/72 Season, Agr. Econ. Rpt. 42; and Spurlock, A.H., Costs of Packing and Selling Florida Fresh Citrus Fruits, 1971/72 Season, Agr. Econ. Rpt. 43, Fla. Agr. Expt. Sta. (Also similar reports for earlier years.) [5] Derived by deducting picking, hauling, packing, and selling costs from shipping pint price. [6] Preliminary.

rail transportation costs 12 percent, picking, hauling, packing and selling costs 19 percent, and grower returns 17 percent.

FROZEN CONCENTRATED ORANGE JUICE

Procedures

Frozen concentrated orange juice was priced at three levels—delivered-in (delivered processing plant door), processor (f.o.b. processing plant), and retail. Quarterly retail prices used were collected by BLS. Processor price is f.o.b. Florida processing plants as reported in the American Institute of Food Distribution's "Report on Food Markets" for the first week of the month in which retail prices are collected. Delivered-in price is a computed return for the quantity of oranges required to process 12/6-oz. cans of frozen concentrated orange juice—based on seasonal average per box price paid by processors for oranges used for frozen concentrated orange juice and seasonal average yield of juice from the oranges processed. Average prices paid by processors and average yield of juice per box for oranges processed into frozen concentrated orange juice are reported by the Florida Canners Association. Reported prices are for priced fruit and do not include processor payment for non-priced fruit included in participation plans or cooperative marketing agreements. The retail value of frozen concentrated orange juice is simply the retail price (no allowance is made for losses during marketing). Simple averages are made of quarterly retail prices, processor prices and delivered-in price to obtain seasonal average prices (Season: Dec.-Nov.).

Wholesale and retail margin for frozen concentrated orange juice is the difference between the retail price and the processor price. This margin includes payment for transportation from the processor to the consuming city, wholesaling or brokerage, intra-city transporation, and retailing. The processor margin is the difference between the processor price and the delivered-in price. It is the amount paid for processing, warehousing, and selling the orange juice. The grower return (on-tree) is derived by deducting picking and hauling costs from the delivered-in price.

Marketing Cost Up—Market Shares Unchanged

The retail price of frozen concentrated orange juice in Chicago and New York City, as estimated by the Bureau of Labor Statistics, averaged 26 cents per 6-oz. can in 1972/73, 15 percent more than in 1965/66 (table 2). The supply (carryover plus pack) of frozen concentrated orange juice in retail size cans increased 88 percent in this period (Fig. 3). Supplies increased rather sharply after 1967/68. However, retail price of frozen concentrated orange juice did not decline after the 1967/68 season. In fact, during 4 of the last 5 seasons retail price increased, apparently reflecting a rapidly increasing demand.

The retail value of a dozen 6-oz cans of frozen concentrated orange juice in Chicago and New York City averaged $3.12 in 1972/73, 15 percent greater than in 1965/66 (Fig. 4, table 2). The wholesale and retail margin also increased 15 percent, to $1.30 per dozen. The processor margin increased 39 percent and picking and hauling costs increased 46 percent.

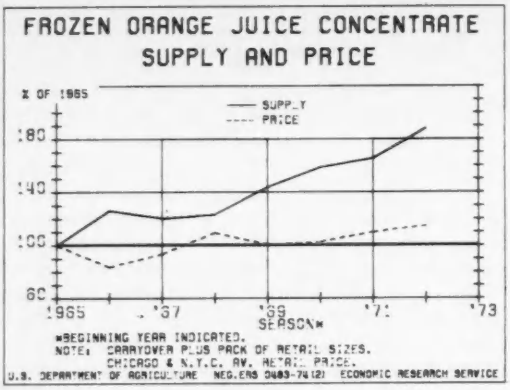


Figure 3

Returns to Florida growers for the oranges required to yield a dozen cans of frozen concentrated orange juice dropped from 80 cents in 1965/66 to 66 cents in 1972/73. Grower returns fluctuated yearly from a high of 97 cents to a low of 35 cents.

The retail value of frozen concentrated orange juice increased an average of 8 cents per dozen 6-oz. cans per year in 1965/66-1972/73. During the same period the wholesale and retail margin increased 4 cents per dozen can per year. The processor margin went up 1 cent, picking and hauling costs rose 2 cents, and the grower return rose 1 cent.

The market shares or percentage of the retail value going to growers and other market factors did not show any significant trend over the period. For the 8 seasons the wholesale and retail margin averaged 40 percent of the retail value, the processor margin 23 percent, picking and hauling costs 12 percent, and grower returns 25 percent.

CONSUMERS PAY MORE FOR FRESH ORANGES THAN PROCESSED

The increased consumption of frozen concentrated orange juice intensifies the need for comparing prices, marketing margins, and grower returns for frozen concentrate with fresh oranges. Comparative data for an equivalent quantity of fresh oranges and frozen concentrate sold in Chicago and New York City during 1965/66-1972/73 are presented in table 3. These data are for 24-ounce orange juice equivalents—that is, a 6-oz. can of frozen concentrate and an equivalent quantity of fresh oranges required to yield 24 ounces of juice to the consumer.

Chicago and New York City consumers paid more for an equivalent quantity of juice from fresh oranges than for frozen concentrate during 1965/66-1972/73, and Florida growers received higher returns for fresh oranges in most seasons. Total marketing margins were also much higher for fresh oranges than for frozen concentrate.

Retail prices in both Chicago and New York City were higher for fresh oranges in each of the 8 seasons. Fresh orange prices in Chicago ranged from one-third higher to more than double frozen concentrate prices. In New York City, they were more than double frozen concentrate prices in most seasons. Retail prices increased during the period for both fresh oranges and frozen concentrate, but they increased faster for fresh oranges.

The total marketing margin for fresh oranges in

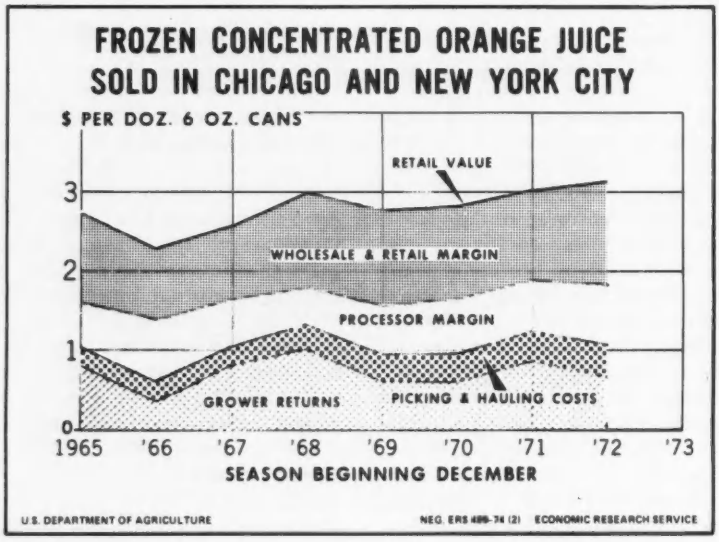


Figure 4

Table 2.—Frozen concentrated orange juice: Seasonal average prices, margins, costs, and returns, average Chicago and New York City[1]

Season	Retail price Per 6-oz can	Retail value per dozen can	Wholesale and retail margin[2]		Processor margin		Picking and hauling costs[3]		Derived grower returns[4]	
			Per dozen cans	Percentage of retail value	Per dozen cans	Percentage of retail value	Per dozen cans	Percentage of retail value	Per dozen cans	Percentage of retail value
	Cents	*Dollars*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*	*Dollars*	*Percent*
1965/66	22.7	2.72	1.10	40	.56	21	.26	10	.80	29
1966/67	19.0	2.28	.89	39	.80	35	.24	11	.35	15
1967/68	21.2	2.54	.89	35	.58	23	.28	11	.79	31
1968/69	24.8	2.98	1.17	39	.49	16	.35	12	.97	33
1969/70	22.8	2.74	1.19	44	.61	22	.34	12	.60	22
1970/71	23.3	2.80	1.16	41	.69	25	.36	13	.59	21
1971/72	24.9	2.99	1.11	37	.65	22	.37	12	.86	29
1972/73[5]	26.0	3.12	1.30	42	.78	25	.38	12	.66	21

[1] Marketing Season: December-November. [2] Includes transportation from processing plant to Chicago and New York City. [3] Spurlock, A.H., Costs of Picking and Hauling Florida Citrus Fruits, 1971/72 Season, Ag. Econ. Rpt., 42, Fla. Agr. Expt. Sta., Feb. 1973. [4] Returns to Florida growers for seasonal average quantity of oranges required to pack 12/6-oz. cans. [5] Preliminary.

New York City was more than double that for frozen concentrate in each of the 8 seasons and in Chicago it was nearly double in 6 of the 8 seasons. The marketing margin for fresh oranges increased sharply during 1965/66–1972/73, but for frozen concentrate, the marketing margin increased only slightly.

Grower returns were higher for fresh oranges in 7 of the 8 seasons. However, grower returns for fresh oranges were only 10 to 14 percent higher than for frozen concentrate in 3 of the seasons.

In dividing up the Chicago and New York City consumer's orange juice dollar, the grower's share was larger for frozen concentrate in every season. Also, the grower's share was highly variable for both frozen concentrate and fresh oranges. It ranged from 14 to 35 percent of the consumer's dollar for frozen concentrate and from 9 to 25 percent for fresh oranges.

The share of the consumer's dollar going for the marketing margin was larger for fresh oranges in every season, ranging from 75 to 91 percent. The wholesale and retail margin was the largest component of the total marketing margin for fresh oranges. This margin represents payments for wholsaling, intra-city transportation, and retailing. It averaged about 50 percent of the consumer's dollar in Chicago and slightly over 50 percent in New York City. The wholesale and retail margin was also the largest component for frozen concentrate, taking slightly under 40 percent of the consumer's dollar in New York City and a little over 40 percent in Chicago. The wholesale and retail margin for frozen concentrate represents payment for transportation from the processing plant, wholesaling, and retailing.

Table 3.—Retail prices, marketing margins, and grower returns for 24 ounces of single-strength juice equivalents, fresh oranges, and frozen concentrate sold in Chicago and New York City, 1965/66-1972/73[1]

Season	Retail price	Marketing margins					Grower returns[6]
		Wholesale and retail margin[2]	Transportation costs[3]	Packing costs or processor margin[4]	Picking and hauling costs[5]	Total margin	
	Cents	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*	*Cents*
				Fresh oranges			
Chicago:							
1965/66	37.1	18.9	4.3	5.8	2.3	31.3	5.8
1966/67	27.7	12.9	4.2	5.3	2.0	24.4	3.3
1967/68	36.2	15.0	4.2	5.6	2.4	27.2	9.0
1968/69	44.2	20.0	5.3	6.9	2.9	35.1	9.1
1969/70	39.9	19.4	5.1	6.8	2.9	34.2	5.7
1970/71	43.6	21.4	5.9	7.1	3.1	37.5	6.1
1971/72	54.1	29.8	5.7	6.8	3.2	45.5	8.6
1972/73[7]	53.2	29.0	6.0	7.1	3.4	45.5	7.7
				Frozen concentrate			
1965/66	23.7	10.2	([8])	4.7	2.2	17.1	6.6
1966/67	20.4	8.8	([8])	6.7	2.0	17.5	2.9
1967/68	22.2	8.5	([8])	4.8	2.3	15.6	6.6
1968/69	26.2	11.1	([8])	4.1	2.9	18.1	8.1
1969/70	23.5	10.6	([8])	5.1	2.8	18.5	5.0
1970/71	24.0	10.3	([8])	5.8	3.0	19.1	4.9
1971/72	25.1	9.4	([8])	5.4	3.1	17.9	7.2
1972/73[7]	27.2	12.0	([8])	6.5	3.4	21.9	5.3
				Fresh oranges			
N.Y. City:							
1965/66	42.1	23.3	4.7	5.8	2.3	36.1	6.0
1966/67	34.4	19.2	4.8	5.3	2.0	31.3	3.1
1967/68	41.3	19.4	4.8	5.6	2.4	32.2	9.1
1968/69	52.4	27.6	6.0	6.9	2.9	43.3	8.9
1969/70	48.2	26.9	6.1	6.8	2.9	42.7	5.5
1970/71	50.6	27.0	7.1	7.1	3.1	44.3	6.3
1971/72	52.1	26.7	6.9	6.8	3.2	43.6	8.5
1972/73[7]	53.9	28.6	7.1	7.1	3.4	46.2	7.6
				Frozen concentrate			
1965/66	21.7	8.2	([8])	4.7	2.2	15.1	6.6
1966/67	17.7	6.2	([8])	6.6	2.0	14.8	2.9
1967/68	20.3	6.6	([8])	4.8	2.3	13.7	6.6
1968/69	23.4	8.3	([8])	4.1	2.9	15.3	8.1
1969/70	22.0	9.1	([8])	5.1	2.8	17.0	5.0
1970/71	22.6	8.9	([8])	5.8	3.0	17.7	4.7
1971/72	24.7	9.0	([8])	5.4	3.1	17.5	7.2
1972/73[7]	24.8	9.6	([8])	6.5	3.4	19.5	5.3

[1] Marketing season: fresh, Nov.-May; frozen concentrate, Dec.-Nov. [2] Fresh: retail price minus city delivered price. Includes wholesaling, intracity transportation, and retailing. Processed: retail price minus processor f.o.b. price. Includes all transportation, wholesaling, and retailing. [3] Rail charges from Lakeland, Fla. [4] Fresh: Spurlock, A.H., Costs of Packing and Selling Florida Fresh Citrus Fruits, 1971/72 Season, Ag. Econ. Rpt. 43, Fla. Agr. Expt. Sta., Feb. 1973. Processed: processor f.o.b. price minus raw product price paid by processor. [5] Spurlock, A.H., Costs of Picking and Jauling Florida Citrus Fruits, 1971/72 Season, Ag. Econ. Rpt. 42, Fla. Agr. Expt. Sta., Feb. 1973. [6] Returns to Florida growers for seasonal average quantity of oranges required to yield 24-ounces of single-strength juice to consumer. [7] Preliminary. [8] Included in wholesale-retail margin.

THE U.S. ORANGE ECONOMY: DEMAND AND SUPPLY PROSPECTS 1973/74 TO 1984/85[1]

by

Jim L. Matthews, Abner W. Womack and Ben W. Huang[2]

ABSTRACT: Conditional market forecasts for the period 1973/74 to 1984/85 are formulated on the basis of an economic-statistical model. Such a formulation provides a basis for exploring some future alternatives for the U.S. orange economy.

Key Words: Oranges, forecasts, projections, models, annual, demand, supply, Florida, California.

Continued rapid growth in the production of oranges in the United States, and Florida in particular, has led to relatively low grower prices despite a sharp increase in demand for frozen orange concentrate. Some slowdown in output is anticipated in the immediate years ahead because of the current reduction in new plantings of orange trees.(*3*) However, future average yields per acre are expected to rise more rapidly as the large tree plantings in the 1960's approach maturity.(*3*) Consequently, growers are concerned over whether demand expansion can keep pace with expected supply expansion and maintain reasonable net grower returns. In contrast, others are concerned that a shortage of orange concentrate may develop in the next few years. If so, prices for orange products could increase substantially from current levels.

To examine the above concerns more closely, we developed an economic-statistical model to project future farm and retail prices, production in the major producing regions, and domestic usage in the fresh and processed outlets. The relationships in the model draw heavily from results of previous studies and a knowledge of significant changes in structure and behavior in the orange industry over the past two decades. (*4*), (*5*), (*7*), (*8*), (*9*), (*10*)

Some of the basic features of the model are presented in the next section. Some evidence of the model's ability to forecast is discussed as are the necessary assumptions required to make forecasts and projections. The projections for 1973/74 to 1984/85 for key price and quantity variables are given. Finally, some future alternatives are examined.

THE MODEL

Two major blocks of equations for integrating supply and demand into a computer simulation model provide the basic analytical framework. The key relationships in the supply block are the equations for estimating bearing orange acreage in Florida and in Central and Southern California.[3] The basic specifications of these equations draw on concepts of supply response for perennial crops discussed previously by French and Matthews. (*4*) The major factors thought to influence estimated bearing acreage are: (1) expected long-run producer profit, (2) expected short-run profit, (3) the age distribution of existing groves, (4) expected profit from alternative land uses, and (5) severe freezes such as the one in 1962. Expected profitability of orange

[1]This is the second of two articles on the U.S. orange economy. The first developed a historical perspective of developments with respect to structural and behavioral changes. (*6*)

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[3]Statistical relationships used in the analysis and historical data series are available on request.

production, as indicated at the lower left of figure 1, is formulated on the basis of recent past production costs and on-tree returns for oranges.[4] Because of the time required for growers to acquire new nursery stock and implement new investment decisions, current year prices do not materially influence acreage. Since yields are not strongly related to current year prices, supply can be treated independent of the current year demand. Yields are influenced mostly by weather and the age distribution of trees and are treated as given in computer simulations.

The second major block of equations describes how farm and retail prices and fresh and processed usage are determined in a very aggregative fashion, given an estimated or known quantity of orange supplies. The key equations for estimating prices and usage are: (1) retail demand equation for all processed oranges in the United States, (2) retail demand equation for fresh oranges, (3) derived demand by packers for fresh oranges in Florida, (4) derived demand by packers for fresh oranges in California, (5) derived demand by processors for all processed oranges in Florida, (6) derived demand by processors for all processed oranges in California, (7) allocation of oranges to fresh and processed usage based on the principle of equal net marginal returns in each outlet, (8) a stock adjustment equation for processed oranges, and (9) a number of market clearing identity relationships.

The basic factors identified as influencing the retail consumption for all processed oranges are: (1) consumer disposable income, (2) retail price of oranges, (3) retail price of grapefruit, (4) retail price of milk, and (5) shifts in tastes and preference over time. The estimated direct price elasticity of demand of -0.73 and the income elasticity of demand of 0.97 for all processed oranges is reasonably consistent with findings reported by Myers in 1969.(7) Retail prices for processed orange products were determined jointly with current consumption and inventory decisions by processors which required the estimation of a stock adjustment relationship.

Empirical results for fresh demand suggest that retail prices for fresh oranges are primarily influenced by per capita usage, consumer disposable incomes and consumer tastes. Some slight influence was found from consumption of apples and bananas and the relationship was complementary. An estimated direct price flexibility at retail of 0.83 for fresh usage appears reasonable.

Results of estimating demand at the farm level for fresh and processed oranges in Florida and California suggest that farm level prices are strongly related to retail prices, wage rates and volume of sales. The negative coefficient on wages is consistent with the notion that processors and packers will reduce their demand for raw oranges as labor and other production costs rise. For processed oranges, prices at the farm level were also strongly influenced by processor stocks carried into the new marketing year.

The allocation of oranges to fresh and processed outlets in California and Florida is determined by equating marginal net returns. The derived result is referred to as the market allocation equations in the model. This technique was first described by Waugh, Burtis and Wolf in 1934 to show how producers can maximize net returns.(*10*) Success in achieving such an allocation is dependent on grower cooperation and a good knowledge of demand relationships. Results of applying such derived equations in California over the period 1954/55 to 1968/69 were highly satisfactory. However, application of this allocation rule in Florida led to an over-estimation in the model for fresh sales and consequently too little for the processed outlet. Direct estimation of a Florida allocation equation proved unsuccessful. However, by observing the difference between the model and actual results over the past 15 years, the difference was found to be closely related to total output. This information was used to adjust the allocation equation in Florida to achieve reasonably good results in historical simulation.

Once farm prices are determined in the demand block of equations, they are used as input to the supply block in the derivation of grower profit expectations. These, in turn, influence investment decisions related to removals or new plantings of orange groves. (See figure 1).

VALIDATION OF THE MODEL

A simple but highly useful test of a dynamic economic forecasting model is to see how well it estimates for years beyond the sample period. Our equations were based on sample data from 1954/55 to 1968/69. This leaves the period from 1968/69 to 1972/73 to compare model estimates of prices, usage and production with reported values for these variables.

Since there is a sequential or recursive relationship between estimates of orange supply and demand variables, estimates of regional supplies are developed for a starting set of values for lagged prices of oranges. Total regional supplies are then used as input to the demand block of equations to generate retail and farm prices and estimates of usage in processed and fresh marketing channels in the United States. Farm prices generated in the demand block are then used in the next round to revise expected grower returns and start a new round of estimates. Thus, once the model is given some initial starting set of values for prices, future price and

[4] Grower prices and equivalent on-tree returns are used with the same meaning in this article.

THE DEMAND AND SUPPLY STRUCTURE FOR U.S. ORANGES

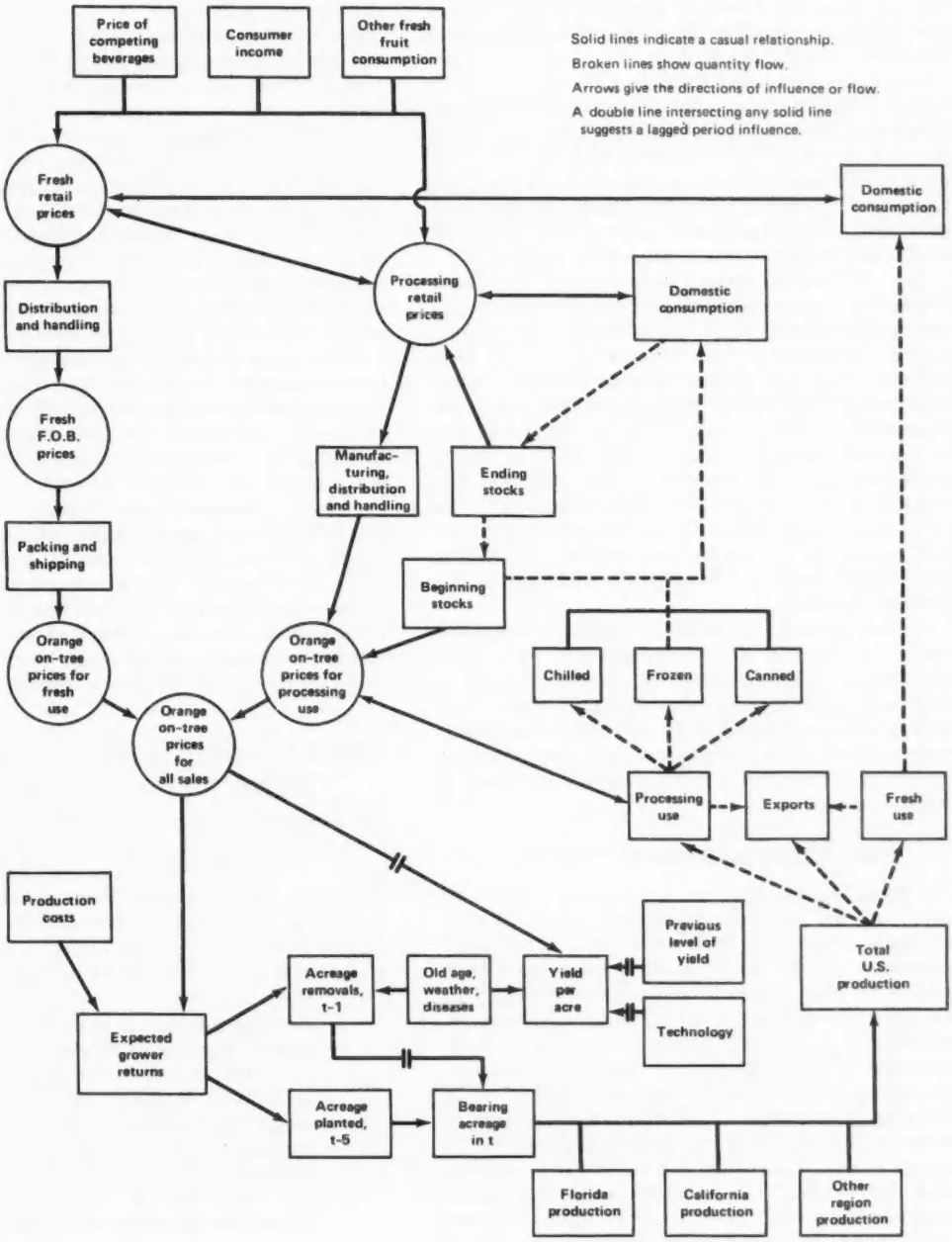

Figure 1

production adjustments are determined by the model. Since values for external factors affecting demand and supply are known—such as consumer income, population, price of competing products, juice yields, grower yields per acre and grower costs—forecasts over the 1968/69 to 1972/73 period are expected to be better than forecasts generated for 1973/74 and beyond. However, the model must provide reasonable estimates over the 1968/69 to 1972/73 period if some credibility is to be placed in it.

Estimates generated by the model are shown in table 1 with comparisons to reported values for prices, usage and production. Equations which were felt to be weak based on the 1968/69 to 1972/73 estimates were: (1) the bearing acreage equation for Southern California, (2) the equation for stock adjustment of processed oranges, and (3) export demand relationships for fresh and processed oranges.

The bearing acreage equation for Southern California underestimated acreage because of the strong downtrend in this area during the sample period. Holding Southern California acreage at a constant level of 75,000 acres provided better estimates. The stock adjustment equation for processed oranges failed to capture a significant rise in reported stocks in 1971/72 and 1972/73. As a consequence, an adjustment in the intercept was made beginning in 1971/72 which increased stocks by 3 pounds per capita. Export equations for fresh and processed oranges were deleted. Therefore, exports are treated as given in the market clearing identity equations.

On the whole, the forecasting performance of the model, given the above corrections, was quite satisfactory. Consequently, it should provide a reasonable basis for estimating future changes in the orange economy. Further investigations of export demand and stock adjustment behavior could be beneficial to the overall performance of the existing model system.

PROJECTION ASSUMPTIONS

A basic assumption in developing projections based on an economic-statistical model is that economic behavior by producers, processors, consumers and other participants has been reasonably well approximated by the model. This was partially demonstrated in the previous section. Secondly, it is generally assumed that the behavior embodied in the model will continue into the future. This assumption, of course, weakens as the projection period is lengthened. In addition, assumptions or estimates about values of factors external to the orange economy but included in the relationships must be made. This includes such factors as consumer disposable incomes, population, inflation rates, price and usage of competing items, wage rates and cost of other inputs such as fertilizer. Finally, a number of factors that characterize the production and marketing processes of the orange industry must take on assumed or given values. These include such things as juice yields, orange yields per acre in California and Florida, net exports of processed oranges, net exports of fresh oranges and Section 32 purchased by the Department of Agriculture for distribution to schools.

Assumed or externally estimated values for all of the fixed or exogenous values are summarized in table 2. Some of the values for these variables are based on recent past trends. For variables such as consumer disposable income and population, projections by other analysts were utilized. Yields for Florida are projected to rise more rapidly than in the 1950's and 1960's because of a higher proportion of older bearing trees expected in the 1970's. Weather conditions which have significant effects on yields are assumed to be normal; consequently, future yields projected in this analysis do not reflect the variation experienced in the 1950's and 1960's.

Forecasting or projecting possible future changes in any industry is hazardous at best. For oranges, periodic freezes compound the difficulty of deriving estimates with which one feels comfortable. Years with abnormally bad weather can alter substantially the timing of changes in prices and output. Unexpected changes in export markets or in domestic demand can also significantly influence the future course of events. Future population pressures, real estate developments and land use policies are all longer term unknowns in projecting orange acreage. Nevertheless decision makers at all levels of the marketing system must make current decisions based on some sets of future expected outcomes.

MODEL FORECASTS AND PROJECTIONS, 1973/74 to 1984/85

Projections based on a statistical-economic model simply offer one additional piece of evidence about future prospects based on an explicit set of underlying assumptions. These assumptions were outlined in the previous section and should be kept in mind in interpreting model projections.

The significant findings or indications based on the current model are:

1. Bearing acreage is expected to continue to decline slightly in Florida through 1975/76 and then recover to the high 1970/71 levels by 1980/81. Rapid growth in bearing acreage would likely occur in the early 1980's with acreage approaching the 800,000 acre level in Florida.
2. For the period 1974/75 to 1979/80, significant increases in prices are expected as strong demand expansion continues for orange concentrate while per capita supplies

Table 1.--Model estimates vs reported values for acreage, production, usage and prices of oranges, 1968/69 to 1972/73

Endogenous variables	Unit	Letter code	Program code	1968/69		1969/70		1970/71		1971/72		1972/73	
				Reported	Model	Reported	Model	Reported	Model	Reported	Model	Reported[1]	Model
Bearing acreage													
Florida	1,000 acres	AFO	Y(1)	621.5	622.7	657.9	678.0	690.3	690.1	646.2	648.4	641.9	639.7
Central California	1,000 acres	ACCO	Y(8)	102.5	103.6	112.3	108.0	114.7	115.3	121.2	119.5		117.4
Production (per capita)													
Fresh use													
Florida	Pounds	QFFO'	Y(16)	6.96	5.75	7.18	7.92	7.13	7.25	5.67	5.50	6.34	7.15
California	Pounds	QCFO'	Y(17)	9.93	9.97	9.86	9.07	9.45	8.85	9.96	10.03	8.87	8.67
Other	Pounds	QOFO'	Y(36)	2.22	1.45	1.97	1.73	1.86	1.73	1.87	1.62	2.35	1.85
Processed use													
Florida	Pounds	QFPOU'	Y(13)	53.70	55.05	56.59	57.73	57.76	57.54	56.35	56.66	69.26	68.11
California	Pounds	QCPO'	Y(19)	6.76	7.01	4.65	5.18	4.32	4.81	5.80	5.83	6.13	7.34
Other	Pounds	QOPO'	Y(35)	1.79	1.54	1.63	1.66	2.18	1.68	2.43	1.68	2.67	2.09
Consumption (per capita)													
Fresh	Pounds	CFO'	Y(22)	16.56	14.62	16.54	16.25	16.34	15.73	14.82	14.48	14.81	14.87
Processed	Pounds	CPO'	Y(24)	49.09	48.62	53.50	56.14	55.86	57.59	57.69	58.86	63.61	64.34
Prices													
Farm													
Fresh use													
Florida	Dol./box	PFFO	Y(9)	2.19	2.42	1.60	1.84	2.01	1.96	2.55	2.33	2.16	2.00
California	Dol./box	PCFO	Y(12)	2.63	2.93	2.97	2.94	3.33	3.30	2.82	3.08	3.76	3.37
Processed use													
Florida	Dol./box	PFPO	Y(28)	1.64	1.79	1.09	.75	1.41	1.13	1.99	1.87	1.38	1.20
California	Dol./box	PCPO	Y(30)	.01	.02	.20	-.07	.09	.04	.10	-.26	-.23	-.66
All uses													
Florida	Dol./box	PFO	Y(2)	1.70	1.85	1.15	.88	1.48	1.23	2.04	1.91	1.45	1.27
California	Dol./box	PCO	Y(6)	1.57	1.73	2.09	1.84	2.31	2.15	1.82	1.86	2.13	1.52
Retail (U.S.)													
Fresh	Cent/dozen	PRFO	Y(10)	83.8	85.7	86.4	85.1	94.3	90.3	94.2	98.5	105.3	102.7
Frozen concentrate	Cent/6 oz. can	PRPO	Y(25)	24.1	24.2	22.5	20.7	23.4	22.4	25.0	23.4	25.1	24.3
Ending stocks	Pounds	ESPO'	Y(26)	10.13	11.84	11.08	11.90	9.92	8.94	14.19	11.73	21.79	18.13

[1] Preliminary.

Table 2.--Summary of data for fixed or exogenous variables, 1972/73 to 1984/85

Exogenous variables	Unit	Letter code	Program code	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76
Trend		T'	X(1)	6	7	6	6	5	5	5	5
Weather dummy		D_1	X(2)	0	0	0	1	.4	0	0	0
Orange yield -Southern California	Box/acre	YSCO	X(6)	244	170	242	187	295	250	252	254
Federal Land Bank interest rate	Percent	IFLB	X(7)	7.82	8.68	7.86	7.42	7.50	7.50	7.50	7.50
Wage rates in nondurable goods industry	Dol./hr.	WND	X(9)	2.91	3.08	3.26	3.47	3.68	3.83	3.98	4.14
Implied juice yield		K	X(10)	.838	.924	.897	.965	.984	1.0	1.0	1.0
Population, civilian July 1	Billions	POP	X(11)	.1991	.2017	.2042	.2065	.2081	.2099	.2117	.2138
Time trend		T	X(12)	69	70	71	72	73	74	75	76
Fertilizer cost	1967=100	FERT	X(15)	93	97	101	104	120	140	140	140
Disposable personal income in Canada	Dol. per cap.	IC'	X(16)	2,867	3,011	3,268	3,601	3,925	4,136	4,426	4,700
Florida average land value and buildings, per acre	Index	FRE'	X(17)	316	352	373	395	418	444	470	499
Orange yield - Florida	Box/acre	YFO	X(18)	216	217	213	220	272	245	250	255
Retail price of grapefruit	Cent each	PRGF	X(19)	15.2	16.9	18.3	19.4	20.0	20.5	21.0	21.5
Government donations	Lb. per cap.	DO'	X(21)	.19	.83	1.29	.02	3.0	2.5	1.8	1.8
Disposable personal income - U.S.	Dol. per cap.	I'	X(22)	3,130	3,376	3,603	3,816	4,184	4,479	4,744	5,042
Farm real estate value in California	1967=100	FRVC	X(25)	109	110	109	112	115	121	127	133
Growers cost - Central California	Dol./box	GCCC	X(27)	1.48	1.92	1.96	2.01	2.05	2.08	2.13	2.14
Low January temperature - Porterville, California	Degrees F	WJ	X(28)	28	28	28	28	28	28	28	28
Orange yield - Central California	Box/acre	YCCO	X(29)	258	237	165	248	190	195	198	204
Net exports of processed oranges	Pounds	EPO'	X(30)	.93	3.16	2.17	.53	2.70	2.25	2.36	2.48
Net exports of fresh oranges	Pounds	EFO'	X(31)	2.55	2.47	2.10	2.68	2.80	2.45	2.45	2.45
Dummy		D5	X(32)	1.0	1.0	1.0	0	0	0	0	0
Dummy		D_6	X(33)	0	0	0	0	1.0	0	0	0
Dummy		D7	X(34)	0	0	1.0	1.0	1.0	1.0	1.0	1.0
Consumption of apples	Pounds	CFA'	X(35)	14.9	18.3	16.1	17.2	16.7	17.0	17.3	17.6
Consumption of bananas	Pounds	CBN'	X(36)	17.9	17.6	18.2	18.1	18.0	18.1	18.2	18.3
Retail price of milk	Cents/qt.	PRMK	X(37)	27.6	28.7	29.4	29.9	32.2	32.8	33.5	34.2
Dummy		D_8	X(38)	0	0	0	1.0	1.0	1.0	1.0	1.0
Dummy		D_9	X(39)	69	69	69	69	69	69	69	69

- Continued -

Table 2.--Summary of data for fixed or exogenous variables, 1972/73 to 1984/85
- Continued -

Exogenous variables	Unit	Letter code	Program code	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Trend		T'	X(1)	5	5	5	5	4	4	4	4	4
Weather dummy		D1	X(2)	0	0	0	0	0	0	0	0	0
Orange yield - Southern California	Box/acre	YSCO	X(6)	256	258	260	262	264	266	268	270	272
Federal Land Bank interest rate	Percent	IFLB	X(7)	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Wage rates in nondurable goods industry	Dol./hr.	WND	X(9)	4.31	4.48	4.66	4.84	5.04	5.24	5.45	5.67	5.89
Implied juice yield		K	X(10)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Population, civilian July 1	Billions	POP	X(11)	.2157	.2178	.2199	.2221	.2244	.2267	.2290	.2314	.2337
Time trend		T	X(12)	77	78	79	80	81	82	83	84	85
Fertilizer cost	1967=100	FERT	X(15)	140	140	140	140	140	140	140	140	140
Disposable personal income in Canada	Dol. per cap.	IC'	X(16)	4,982	5,280	5,597	5,933	6,277	6,641	7,026	7,434	7,873
Florida average land value and buildings, per acre	Index	FRE'	X(17)	529	560	594	630	667	707	750	795	842
Orange yield - Florida	Box/acre	YFO	X(18)	260	265	270	275	279	282	284	285	285
Retail price of grapefruit	Cent each	PRGF	X(19)	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0
Government donations	Lb. per cap.	DO'	X(21)	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Disposable personal income - U.S.	Dol. per cap.	I'	X(22)	5,359	5,692	6,043	6,409	6,781	7,177	7,597	8,040	8,512
Farm real estate value in California	1967=100	FRVC	X(25)	140	147	154	162	170	178	187	196	206
Growers cost - Central California	Dol./box	GCCC	X(27)	2.18	2.22	2.23	2.26	2.29	2.32	2.35	2.38	2.41
Low January temperature - Porterville, California	Degrees F	WJ	X(28)	28	28	28	28	28	28	28	28	28
Orange yield - Central California	Box/acre	YCCO	X(29)	208	212	216	220	224	228	232	236	240
Net exports of processed oranges	Pounds	EPO'	X(30)	2.60	2.73	2.87	3.01	3.16	3.32	3.49	3.66	3.84
Net exports of fresh oranges	Pounds	EFO'	X(31)	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Dummy		D5	X(32)	0	0	0	0	0	0	0	0	0
Dummy		D6	X(33)	0	0	0	0	0	0	0	0	0
Dummy		D7	X(34)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Consumption of apples	Pounds	CFA'	X(35)	17.9	18.2	18.5	18.8	19.1	19.4	19.7	20.0	20.3
Consumption of bananas	Pounds	CBN'	X(36)	18.4	18.5	18.6	18.7	18.8	18.9	19.0	19.1	19.2
Retail price of milk	Cents/qt.	PRMK	X(37)	34.9	35.6	36.3	37.0	37.7	38.5	39.3	40.0	40.8
Dummy		D8	X(38)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Dummy		Dg	X(39)	69	69	69	69	69	69	69	69	69

are expected to remain steady. More rapid growth in supplies in the 1980's would be expected to dampen price increases.

3. Model estimates for grower prices in 1973/74 are lower than in 1972/73. The forecast is in the face of sharp increases in consumer incomes and the general price structure. However, prices in the first three months of 1973/74 were moderately higher. This price performance might be maintained for the rest of 1973/74 should processors continue to carry significantly larger stocks than estimated by the model. This is a definite possibility in view of the projected increases in orange prices in 1974/75.

Table 3 presents a summary of forecasted and projected changes for prices, usage and supplies. Perhaps the item which one might question most is the rise in grower prices of processed oranges in Florida relative to prices of fresh oranges in California in 1984/85. This price strength in processed oranges is attributed largely to the high income elasticity of demand and the assumed change in the level of per capita disposable incomes. However, some tempering of the income effects at higher income levels in the 1980's may be more reasonable than continuing the linear extrapolation of income effects as was done in this analysis. Also, higher relative prices for orange concentrate could encourage additional competition from synthetics and other orange related drinks not explicitly considered in the present model framework.

SOME FUTURE ALTERNATIVES

Assumptions about such factors as per capita consumer disposable incomes, wage rates, price of competing products, orange yields per acre and juice yields are required in developing the base set or "best guess" set of projections in the previous section These assumptions are shown in table 2. However, considerable additional insight may be gained by examining some alternative feasible values for selected factors. The results of some computer simulations for selected alternatives are summarized in table 4.

This information can be utilized by the reader in making adjustments to the base forecast in the previous section. For example, Florida orange yields could average higher than the yields assumed in table 2. The current year effect if realized yields were 10 boxes per acre more would be a drop of about 1.5 cents per 6-ounce can of frozen concentrate at retail. If the yield were to remain 10 boxes higher in later years than assumed, the effect of such a change would result in a decline of about 2 cents per 6-ounce can after 2 years. In the long run, retail prices would average 1.35 cents lower than otherwise projected. For the estimated drop of 29 cents per box in the Florida on-tree prices, bearing acreage would then be expected to average 3,700 acres less in the following year. In the long run the effect of an increase of 10 boxes in yield would be a decline of 17,350 bearing acres in Florida and a slight decline of 150 acres in California. Effects of a 10-box change in Florida orange yields on other prices and domestic usage can be found by reference to table 4.

Impacts of specified changes for exports of processed oranges (EPO'), per capita disposable income (I'), retail price of fluid milk (PRMK), juice yields (K), grower production costs in Florida (GCF), ending stocks of processed orange products (ESPO') and per capita purchases by the Department of Agriculture of orange products for distribution to schools (DO') can all be obtained from table 4. Note that changes in such variables as per capita exports of processed oranges (EPO') are shown in brackets. For EPO', the assumed change is a 2-pound increase which is maintained over the entire projection period. Since the model is nearly linear, other incremental changes in EPO' can be computed by the reader by simply prorating other assumed changes with respect to the assumed 2-pound change. The effect on prices and output of oranges of an assumed increase of 4 pounds can be found by doubling the values shown in table 4 for the EPO' impacts.

Table 3.--Economic forecasts and projections for the U.S. orange economy, 1973/74 to 1984/85

Endogenous variables	Unit	Letter code	Program code	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
Bearing acreage															
Florida	1,000 acres	AFO	Y(1)	642.1	631.1	631.9	640.6	650.0	657.6	670.4	685.3	707.0	730.0	752.8	776.2
Central and Southern California	1,000 acres	ACO	Y(5)	190.8	179.7	165.9	152.3	164.2	172.3	174.7	179.5	185.0	191.0	197.1	201.9
Production (per capita)															
Fresh use															
Florida	Pounds	QFFO'	Y(16)	7.34	5.72	5.12	5.09	5.22	5.28	5.29	5.26	5.28	5.29	5.19	4.97
California	Pounds	QCFO'	Y(17)	9.75	9.29	8.80	8.38	8.83	9.19	9.34	9.58	9.84	10.13	10.41	10.61
Other	Pounds	QOFO'	Y(36)	1.94	1.85	1.85	1.92	2.00	2.07	2.14	2.20	2.27	2.34	2.39	2.44
Processed use															
Florida	Pounds	QFPOU'	Y(13)	60.11	61.35	62.71	64.40	65.95	67.39	69.42	71.42	73.87	76.20	78.25	80.22
California	Pounds	QCPO'	Y(19)	5.02	4.75	4.38	3.88	4.34	4.63	4.70	4.86	5.06	5.27	5.50	5.71
Other	Pounds	QOPO'	Y(35)	1.86	1.93	2.00	2.08	2.17	2.24	2.34	2.43	2.54	2.65	2.75	2.84
Consumption (per capita)															
Fresh	Pounds	CFO'	Y(22)	16.57	14.41	13.32	12.94	13.60	14.09	14.31	14.59	14.94	15.30	15.54	15.57
Processed	Pounds	CPO'	Y(24)	68.24	65.38	64.28	65.02	67.24	69.56	71.65	73.77	76.25	78.87	81.23	83.44
Ending stocks (per capita)	Pounds	ESPO'	Y(26)	12.14	10.63	11.17	12.10	12.80	12.83	12.82	12.81	12.90	12.85	12.66	12.34
Prices															
Farm															
Fresh use															
Florida	Dol./box	PFFO	Y(9)	1.81	2.32	2.54	2.59	2.52	2.48	2.48	2.47	2.46	2.45	2.46	2.53
California	Dol./box	PCFO	Y(12)	2.93	3.30	3.55	3.70	3.54	3.42	3.38	3.30	3.22	3.14	3.07	3.05
Processed use															
Florida	Dol./box	PFPO	Y(28)	.97	2.14	2.66	2.79	2.74	2.75	2.83	2.91	2.97	3.04	3.17	3.39
California	Dol./box	PCPO	Y(30)	-.43	.06	.40	.59	.43	.30	.26	.18	.10	.01	-.06	-.06
All uses															
Florida	Dol./box	PFO	Y(2)	1.06	2.16	2.65	2.78	2.73	2.73	2.81	2.88	2.94	3.00	3.13	3.34
California	Dol./box	PCO	Y(6)	1.79	2.20	2.50	2.72	2.51	2.37	2.33	2.25	2.16	2.07	1.99	1.96
Retail (U.S.)															
Fresh	Cent/doz.	PRFO	Y(10)	101.6	113.8	122.7	129.4	132.7	136.8	142.1	147.4	152.8	158.5	165.0	172.7
Frozen concentrate	Cent/6 oz can	PRPO	Y(25)	22.78	28.29	32.25	34.42	35.17	35.96	37.14	38.33	39.56	40.85	42.42	44.59

Table 4.--Dynamic impacts of assumed changes in exogenous demand and supply variables which influence the U.S. orange economy[1]

Endogenous variables	Unit	Letter code	Program code	(YFO) Increase of 10 boxes per acre					(EPO') Increase of 2 pounds per person				
				Current period	After 1 year	After 2 years	After 3 years	Long-run	Current period	After 1 year	After 2 years	After 3 years	Long-run
Bearing acreage													
Florida	1,000 acres	AFO	Y(1)	0.0	-3.70	-9.35	-13.83	-17.35	0.0	2.35	5.79	8.33	7.31
Central and Southern California	1,000 acres	ACO	Y(5)	0.0	0.0	0.0	0.0	.15	0.0	0.0	0.0	0.0	-.12
Production (per capita)													
Fresh use													
Florida	Pounds	QFFO'	Y(16)	.40	.58	.46	.28	.48	-.20	-.30	-.21	-.09	-.11
California	Pounds	QCFO'	Y(17)	.06	.11	.11	.08	.10	-.08	-.10	-.11	-.09	-.09
Other	Pounds	QOFO'	Y(36)	.04	.06	.05	.03	.05	-.02	-.03	-.02	-.01	-.01
Processed use													
Florida	Pounds	QFPOU'	Y(13)	2.41	2.03	1.63	1.12	1.42	.19	.53	.75	.89	.91
California	Pounds	QCPO'	Y(19)	-.06	-.11	-.11	-.08	-.09	.08	.10	.11	.09	.08
Other	Pounds	QOPO'	Y(35)	.08	.07	.05	.04	.05	.01	.02	.02	.03	.03
Consumption (per capita)													
Fresh	Pounds	CFO'	Y(22)	.51	.74	.61	.39	.63	-.29	-.44	-.33	-.19	-.21
Processed	Pounds	CPO'	Y(24)	1.39	2.09	1.87	1.27	1.42	-1.20	-1.66	-1.52	-1.15	-1.02
Ending stocks (per capita)	Pounds	ESPO'	Y(26)	.65	.40	-.06	-.29	.06	-.56	-.28	.04	.17	-.02
Prices													
Farm													
Fresh use													
Florida	Dol./box	PFFO	Y(9)	-.14	-.20	-.16	-.09	-.12	.07	.11	.08	.04	.03
California	Dol./box	PCFO	Y(12)	-.09	-.13	-.11	-.07	-.07	.06	.09	.07	.05	.04
Processed use													
Florida	Dol./box	PFPO	Y(28)	-.31	-.42	-.33	-.19	-.26	.15	.23	.16	.08	.09
California	Dol./box	PCPO	Y(30)	-.13	-.20	-.18	-.12	-.13	.11	.15	.14	.10	.09
All uses													
Florida	Dol./box	PFO	Y(2)	-.29	-.39	-.31	-.18	-.26	.14	.21	.15	.08	.09
California	Dol./box	PCO	Y(6)	-.10	-.13	-.11	-.07	-.08	.07	.09	.07	.05	.04
Retail (U.S.)													
Fresh	Cent/doz.	PRFO	Y(10)	-1.80	-2.64	-2.18	-1.37	-2.24	1.02	1.55	1.18	.69	.76
Frozen concentrate	Cent/6 oz can	PRPO	Y(25)	-1.46	-2.21	-1.98	-1.35	-1.50	1.27	1.75	1.61	1.22	1.07

- Continued -

Table 4.--Dynamic impacts of assumed changes in exogenous demand and supply variables which influence the U.S. orange economy[1]
- Continued -

Endogenous variables	Unit	Letter code	Program code	(K) Increase of 20 percent					(DQ') Increase of 1 pound per person				
				Current period	After 1 year	After 2 years	After 3 years	Long-run	Current period	After 1 year	After 2 years	After 3 years	Long-run
Bearing acreage													
Florida	1,000 acres	AFO	Y(1)	0.0	-9.17	-23.22	-34.26	-52.20	0.0	1.18	2.90	4.16	3.66
Central and Southern California	1,000 acres	ACO	Y(5)	0.0	0.0	0.0	0.0	-.02	0.0	0.0	0.0	0.0	-.06
Production (per capita)													
Fresh use													
Florida	Pounds	QFFO'	Y(16)	1.48	2.01	1.69	1.20	1.82	-.10	-.15	-.10	-.04	-.06
California	Pounds	QCFO'	Y(17)	.22	.35	.36	.31	.42	-.04	-.05	-.06	-.04	-.04
Other	Pounds	QOFO'	Y(36)	.14	.20	.17	.12	.18	-.01	-.02	-.01	-.004	-.01
Processed use													
Florida	Pounds	QFPOU'	Y(13)	-1.48	-2.90	-3.87	-4.48	-7.55	.10	.22	.35	.45	.46
California	Pounds	QCPO'	Y(19)	-.22	-.35	-.36	-.31	-.43	.04	.05	.06	.04	.04
Other	Pounds	QOPO'	Y(35)	-.05	-.09	-.13	-.15	-.25	.003	.01	.01	.02	.02
Consumption (per capita)													
Fresh	Pounds	CFO'	Y(22)	1.84	2.56	2.22	1.62	2.42	-.14	-.22	-.16	-.10	-.10
Processed	Pounds	CPO'	Y(24)	4.86	7.07	6.55	5.06	5.89	-.60	-.83	-.76	-.58	-.51
Ending stocks (per capita)	Pounds	ESPO'	Y(26)	2.27	1.30	-.09	-.70	.16	-.28	-.14	.02	.08	-.01
Prices													
Farm													
Fresh use													
Florida	Dol./box	PFFO	Y(9)	-.51	-.68	-.57	-.39	-.47	.04	.06	.04	.02	.02
California	Dol./box	PCFO	Y(12)	-.33	-.45	-.39	-.28	-.29	.03	.04	.04	.02	.02
Processed use													
Florida	Dol./box	PFPO	Y(28)	-.58	-.93	-.68	-.34	-.39	.08	.12	.08	.04	.04
California	Dol./box	PCPO	Y(30)	-.47	-.67	-.62	-.47	-.53	.06	.08	.07	.05	.04
All uses													
Florida	Dol./box	PFO	Y(2)	-.55	-.87	-.65	-.33	-.41	.07	.10	.08	.04	.04
California	Dol./box	PCO	Y(6)	-.35	-.46	-.38	-.29	-.30	.04	.04	.04	.02	.02
Retail (U.S.)													
Fresh	Cent/doz.	PRFO	Y(10)	-6.54	-9.09	-7.89	-5.75	-8.60	.51	.78	.59	.34	.38
Frozen concentrate	Cent/6 oz can	PRPO	Y(25)	-5.14	-7.47	-6.92	-5.35	-6.23	.64	.88	.80	.61	.54

- Continued -

Table 4.--Dynamic impacts of assumed changes in exogenous demand and supply variables which influence the U.S. orange economy[1]
- Continued -

Endogenous variables	Unit	Letter code	Program code	(I') Increase of $400 per person					(PRMK) Increase in 2¢ per quart				
				Current period	After 1 year	After 2 years	After 3 years	Long-run	Current period	After 1 year	After 2 years	After 3 years	Long-run
Bearing acreage													
Florida	1,000 acres	AFO	Y(1)	0.0	4.92	12.67	18.41	14.87	0.0	4.52	12.06	17.68	16.12
Central and Southern California	1,000 acres	ACO	Y(5)	0.0	0.0	0.0	0.0	.08	0.0	0.0	0.0	0.0	-.33
Production (per capita)													
Fresh use													
Florida	Pounds	QFFO'	Y(16)	-.05	-.34	-.15	.09	-.05	-.37	-.67	-.48	-.23	-.23
California	Pounds	QCFO'	Y(17)	.03	-.02	-.02	.01	-.03	-.15	-.19	-.18	-.15	-.16
Other	Pounds	QOFO'	Y(36)	-.01	-.03	-.01	.01	-.01	-.04	-.07	-.05	-.02	-.02
Processed use													
Florida	Pounds	QFPOU'	Y(13)	.05	.82	1.34	1.67	1.68	.37	1.11	1.61	1.92	2.00
California	Pounds	QCPO'	Y(19)	-.03	.02	.02	-.01	.04	.15	.19	.18	.15	.13
Other	Pounds	QOPO'	Y(35)	.002	.03	.04	.05	.06	.01	.04	.05	.06	.07
Consumption (per capita)													
Fresh	Pounds	CFO'	Y(22)	-.03	-.39	-.18	.11	-.09	-.56	-.92	-.71	-.40	-.42
Processed	Pounds	CPO'	Y(24)	1.07	.25	.64	1.41	1.68	1.54	.69	1.06	1.81	2.11
Ending stocks (per capita)	Pounds	ESPO'	Y(26)	-1.05	-.50	.12	.38	-.07	-1.07	-.52	.11	.37	-.06
Prices													
Farm													
Fresh use													
Florida	Dol./box	PFFO	Y(9)	.28	.36	.29	.20	.15	.14	.24	.17	.09	.07
California	Dol./box	PCFO	Y(12)	.26	.31	.27	.21	.15	.12	.18	.14	.09	.07
Processed use													
Florida	Dol./box	PFPO	Y(28)	.30	.50	.35	.17	.19	.29	.51	.36	.19	.18
California	Dol./box	PCPO	Y(30)	.25	.32	.28	.20	.17	.21	.29	.26	.18	.16
All uses													
Florida	Dol./box	PFO	Y(2)	.30	.48	.34	.17	.19	.27	.47	.33	.17	.18
California	Dol./box	PCO	Y(6)	.26	.31	.27	.21	.15	.13	.18	.14	.09	.07
Retail (U.S.)													
Fresh	Cent/doz.	PRFO	Y(10)	6.51	7.80	7.06	6.03	6.73	1.97	3.28	2.52	1.42	1.47
Frozen concentrate	Cent/6 oz can	PRPO	Y(25)	2.38	3.24	2.84	2.02	1.74	2.44	3.36	2.95	2.16	1.84

- Continued -

Table 4.--Dynamic impacts of assumed changes in exogenous demand and supply variables which influence the U.S. orange economy [1]
- Continued -

Endogenous variables	Unit	Letter code	Program code	(ESPO') Increase 2 pound per person					(GCF) Increase of 25 cents				
				Current period	After 1 year	After 2 years	After 3 years	Long-run	Current period	After 1 year	After 2 years	After 3 years	Long-run
Bearing acreage													
Florida	1,000 acres	AFO	Y(1)	0.0	5.13	6.71	6.15	-2.00	0.0	-4.79	-7.68	-10.44	-34.10
Central and Southern California	1,000 acres	ACO	Y(5)	0.0	0.0	0.0	0.0	-.23	0.0	0.0	0.0	0.0	.56
Production (per capita)													
Fresh use													
Florida	Pounds	QFFO'	Y(16)	-.20	.17	.41	.43	.12	0.0	-.08	-.15	-.21	-.91
California	Pounds	QCFO'	Y(17)	-.08	-.07	-.02	0.0	-.06	0.0	-.01	-.03	-.04	-.17
Other	Pounds	QOFO'	Y(36)	-.02	.02	.04	.04	.01	0.0	-.01	-.01	-.02	-.09
Processed use													
Florida	Pounds	QFPOU'	Y(13)	.11	.43	.30	.23	-.35	0.0	-.39	-.58	-.79	-2.84
California	Pounds	QCPO'	Y(19)	.08	.07	.02	0.0	.03	0.0	.01	.02	.04	.22
Other	Pounds	QOPO'	Y(35)	.01	.01	.01	0.0	-.01	0.0	-.01	-.02	-.03	-.09
Consumption (per capita)													
Fresh	Pounds	CFO'	Y(22)	-.31	.12	.43	.46	.09	0.0	-.10	-.18	-.27	-1.16
Processed	Pounds	CPO'	Y(24)	-1.20	-.55	.23	.47	-.39	0.0	-.25	-.49	-.75	-2.72
Ending stocks (per capita)	Pounds	ESPO'	Y(26)	1.49	2.54	2.63	2.40	2.23	0.0	-.12	-.12	-.13	-.01
Prices													
Farm													
Fresh use													
Florida	Dol./box	PFFO	Y(9)	.07	-.04	-.12	-.12	-.02	0.0	.02	.05	.07	.23
California	Dol./box	PCFO	Y(12)	.06	0.0	-.04	-.05	0.0	0.0	.01	.03	.04	.13
Processed use													
Florida	Dol./box	PFPO	Y(28)	.33	.08	-.08	-.08	.11	0.0	.05	.10	.15	.49
California	Dol./box	PCPO	Y(30)	.11	.05	-.03	-.05	.04	0.0	.02	.05	.07	.24
All uses													
Florida	Dol./box	PFO	Y(2)	.31	.07	-.08	-.09	.10	0.0	.05	.10	.14	.48
California	Dol./box	PCO	Y(6)	.06	.01	-.05	-.05	.01	0.0	.01	.03	.05	.13
Retail (U.S.)													
Fresh	Cent/doz.	PRFO	Y(10)	1.09	-.44	-1.53	-1.64	-.29	0.0	.33	.66	.97	4.15
Frozen concentrate	Cent/6 oz can	PRPO	Y(25)	1.28	.57	-.25	-.49	.40	0.0	.27	.52	.80	2.87

[1] The multiplier values shown in this table depend on the values for juice yields (K), population (POP), and orange yields in Florida and California given in table 2 for the period 1968/69 to 1984/85. See table 2 for exogenous variable identification.

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